

# technology review

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## "M.I.T. Man Preferred."

For almost four years, "W. L. F., Inc.," and "M. I. T." have been working closely together. There has never been, and is not now, any FORMAL agreement: but when the people at "Tech" have had an opportunity to help us, they have always done so; and Mr. Fletcher and this company, on the other hand, have been able to help dozens—perhaps hundreds—of Tech men secure desirable positions.

Because we appreciate the coöperation we have received and are now getting from M. I. T., we are going to use this space this month to tell you how YOU—regardless of who you are or where you are—can render a real service to your college and other Tech men. All you need to do is to say to us, when you send an order for a man, "M. I. T. man preferred." We will then consider every M. I. T. man who has an application on file with us before we consider any one else. Everything else being equal, if we have a "Tech" man who wants the job, he will get it. In this way, without a cent of expense or any obligation of any sort to "Tech" or any alumnus, this organization can be put to work for "Tech" and "Tech" men.

If the importance of this suggestion is not apparent at first glance, study the situation a moment. It is obvious that in the long run the standing of any college is determined by the success of its alumni. By success, we mean the money they earn and the services they render. Money is not everything, but the question of whether the average "Tech" man ten years out of college earns \$2,000 a year or \$6,000 a year is not, perhaps, exactly an unimportant matter. The employment problem is an important and difficult one for every college. Your Alma Mater is handling the situation as well as any institution we know—perhaps better than any other—but to the best of our knowledge, no college is handling this problem to its own satisfaction.

With your help, William L. Fletcher, Inc., can function as a *powerful* ally. If you are an employer and need a good man, give us the business. If you are an employee and know of a job open which some "Tech" man could handle, tell us where the job is so we can go get it, or better still, tell the employer to get in touch with us and don't fail to say, "M. I. T. man preferred."

As this advertisement goes to press, we have one hundred jobs open in twelve states with combined salaries of more than \$300,000. We can handle a job in New York, or Chicago, or San Diego, Cal., almost as well as one in Boston. Our facilities for investigation are believed to be better than those of any other corporation in America. To the best of our knowledge, we have never placed any man at a salary of \$3,000 or more who has failed to make good. For one period of eighteen months, every man placed made good. Many of our clients believe that we can fill an important position for about one third of what it would cost them to fill it. We believe we are in touch with as many really high grade men as any employment organization in the United States. In forty-eight hours after a job comes in, we can tell which of the men we are in touch with are interested to be considered for it and exactly the degree in which they are qualified. If we are not already in touch with the man desired we can certainly locate him.

Sometime YOU may want a job. Even big men need jobs sometimes. Some "Tech" man wants a good job now. We will help if you will help. Just say "M. I. T. man preferred" — and pass the word along. More power to your fighting spirit!

### William L. Fletcher, Inc.

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# "He has a pull"

LET US FACE frankly this question of "Pull."

It does exist in business. The President of a Company hires the son of a trusted friend. Why? Not merely because the young man is the son of a friend; but because the President believes that good blood will tell.

A Tech graduate, who is a general manager, hires a Tech graduate as an assistant. Why? Not merely because the younger man is a Tech man, but because the general manager believes that training will tell.



From a drawing by J. Henry

IN Cincinnati the Board of Directors of a financial institution was considering several men for the position of Vice President and General Manager. The successful applicant—the man who now holds that coveted position—has written an account of his interview with the Board of Directors.

"I stated my experience," he writes, "and added that I had completed the Modern Business Course of the Alexander Hamilton Institute.

"I then learned that several members of the Board were subscribers to the Institute. They evidently knew that the knowledge obtained from the Course and Service gives a man a thoro grasp of the controlling forces of business, and fits him to hold a responsible executive position. At any rate, I was selected . . . "

There are men in Cincinnati who say of this man: "He has a pull with the Directors." They are right. But the "pull" is a perfectly legitimate one. The Directors, who owe a part of their success to the training of the Alexander Hamilton Institute, picked him because they believed that the same training had made him a man whose judgment they could trust.

This does not mean that every man who completes the Institute Course is "taken care of" in business. Business does not "take care of" anybody. It does mean, however, that with the knowledge and self-confidence that this training gives, you have an added asset—a

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favorable introduction to the 200,000 worth-while men who are enrolled with you.

The Alexander Hamilton Institute makes no exaggerated claims and attempts to exert no pressure. It asks simply for the privilege of laying the full facts before thoughtful men. The facts are contained in a 118-page booklet entitled "Forging Ahead in Business."

Reading it may be the means of bringing you in touch with men who will vastly widen your opportunities for success.

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# TECHNOLOGY REVIEW

RELATING TO THE
MASSACHVSETTS · INSTITUTE · OF · TECHNOLOGY

H. E. LOBDELL E. F. HODGINS R. E. ROGERS CONTRIBUTING EDITOR

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# Cake Eater -model of 1900

He was called dude and dandy then, but you recognize the type.

He majored in haberdashery and took his degree with honors in soxology.

As if that were not enough, he evolved some variations on the cake walk which made them stare.

He even found time to develop a remarkable proficiency on the tandem bicycle, and on Saturday nights he was good enough to bring pleasure into Another's life by wheeling away to the "Ten-Twent-Thirt."

To crowd all this into four short years would seem enough for any mortal. Yet in spite of his attainments there are times, in after life, when our hero wonders.

The glory of his waistcoats has long since faded, while his books are still fresh and clean. Did he perchance put too much thought into the selection of his hats and too little in what went under them?

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the interest of Electrical Development by
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This advertisement is one of a series in student publications. It may remind alumni of their opportunity to help the undergraduate, by suggestion and advice, to get more out of his four years.



## TECHNOLOGY REVIEW

RELATING TO THE
MASSACHVSETTS · INSTITVTE · OF · TECHNOLOGY

## The Past Month

ONSIDERABLE comment has been evoked by newspaper announcements to the effect that "what may be the last large offering of Eastman Kodak common stock is available to the invest-

ing public now that the University of Rochester and the Massachusetts Institute of Technology have given an option on a large block of these shares to a group of Rochester and New York bankers, and these shares, it would appear from the sales on the New York Stock Exchange, are being absorbed rapidly by investors throughout the country." This statement has been officially confirmed by the authorities of the Rochester institution and Technology and the options have been exercised. The latter now holds only onequarter of the original block given it by Mr. Eastman as his payment to fulfill his offer back in 1919.

A little over three years ago when the Alumni and interested friends of Technology subscribed in cash and promises \$2,927,749.87, to which was added \$1,082,330.00 from Technology Plan contracts, the conditions of Mr. Eastman's offer were met and he turned over 5,000 shares of Kodak stock as his pay-

ment. These 5,000 shares paid a dividend of 40 per cent—equal to 5 per cent interest on \$4,000,000.00—and their value on the Institute's books appeared as that

figure. In 1921 the Eastman Kodak Company issued new stock of no par value and these 5,000 shares of old stock were exchanged for 50,000 of the new, the book value being kept at \$4,000,000.00 or \$80.00 per share.

Between September 25th of last year and February 26th of this, Technology has disposed of 37,500 shares for \$3,385,001.41 net cash. The reason for selling any of this stock at this time was solely one of investment policy. Those responsible for the financial policy of the institutions holding the shares agreed that unquestionably valuable and sound as the common stock of the Eastman Kodak Company is, it was not good policy for an institution like Technology to have so large a portion of its endowment invested in the common stock of any company. The income from these sales reduces the book value of the remaining 12,500 shares to \$614,998.59 (about 4 per cent of the Institute's total invested funds) or \$49.12 per share. As this is written, the price on the New York Stock Exchange is 1127/8, the highest sale since February 1 being at 1137/8.

It would therefore appear that "Mr. Smith's four million" is worth at least

Photo by Craftsman Studio
GEORGE L. GILMORE, '90
Who has been nominated as President of the Alumni
Association for its next fiscal year

three-quarters of a million more than we expected. Of the amount subscribed by the Alumni \$2,182,336.31 or 74.6 per cent has been paid in up to March 3. Of the

balance \$304,528.69 or 14.0 per cent is overdue, while \$745,423.56 was promised for payment this coming summer or next year. On the Technology Plan contracts \$860,864.00 has been paid in, \$186,466.00 is due by next January and only \$35,050.00 is in arrears.

MONG the successful candidates in the recent Good Will elections, held during February, is Miss Marjorie Pierce, Miss Pierce with the thirteen other successful delegates will carry Boston's quota of \$93. 730 to France when she sails on April 18. Miss Pierce was a student in Architectural Department for four years and received her degree last June. During the year 1922-1923, she took advanced work in Archi-Prof. William tecture. Emerson, head of the Department, nominated Miss Pierce.

ITH much sorrow the Review records the death of Prof. Henry

K. Burrison, '75, Retired, which occurred on February 2. Professor Burrison's active connection with the Institute Faculty came to an end in 1914 when he retired from the Department of Drawing, but most Technology men have retained a vivid memory of him. The Review hopes in a forth-coming number to deal more adequately with the history of his career.

JUNIOR Freshmen are about to pass into history. The Faculty Committee on first-year instruction recommended on February 21 that "the admission of first-year students to the Institute in January, as a Junior first-year class, be discontinued." The Faculty adopted the recommendation with little discussion.

The Committee presented some interesting statistics. Of the men admitted in January, 1922, 34% of them either had poor records, had been advised to withdraw or required to withdraw. Of the men admitted in January, 1920, less than 30% will probably graduate in

OME day there will be written an interesting yarn concerning news stories about Technology which take hold upon the public imagination. This observation is brought forth by the recent wide publicity afforded to the Institute and Prof. Edward F. Miller, '86, by Professor Miller's declaration that when a thriller is shown in a movie house, the spectators are so well able to keep themselves warm by the operation of their own emotions that canny exhibitors bank their furnace fires and let Theda Bara do the rest. By now, this news has swept the country from coast to coast, has elbowed many less picturesque events from off a good many front pages. We quote, for example, this item from the New York World of February 24:

"Coal-burning theatre managers on Broadway were interested yesterday in the news from Boston about Professor Miller. It seems Prof. Edward F. Miller of the Massachusetts Institute of Technology has discovered that the average person, when calm, gives off 425 heat units, but when emotionally excited the heat units jump to—oh,

thousands and thousands and thousands.
"Professor Miller found it out by observing audiences in theatres. He found that the added heat generated by the audience at the plays' crucial moments raised the temperature of the theatre several degrees.

"Naturally, the coal-burning managers were interested.

Al H. Wood was gleeful.
"'I wondered,' he exclaimed, 'what was keeping my
coal bills down.'

"It was estimated on figures gathered from the Professor's idea, that the Misses Florence Reed, Violet Heming, Ina Claire, Pola Negri, Theda Bara and Lenore Ulric save the Messrs. David Belasco, Arthur Hopkins, Mack Sennett and Charles B. Dillingham upward of \$547,687 yearly in

anthracite coal bills alone, not including the bituminous. "In fact, it was said at the Lambs' Club last night that these young ladies had received a petition from the starving miners in Pennsylvania, requesting them to act cold during the remainder of the winter.

"The report also went that Mrs. Leslie Carter plans to file suit for a rebate on 465,876 tons of coal she is alleged to have saved David Belasco in 'Du Barry' and 'The Heart of Maryland.'

"'A kiss by John Barrymore saves a theatre a ton of chestnut or a ton and a half of egg coal,' was the opinion of one prominent actor, standing at Broadway and 42d Street vesterday.

Street yesterday.

"The Professor's discovery has created quite a stir on Broadway. Hereafter, actors and actresses who have reputations as warm babies, may demand a coal-saving clause in their contracts."

Nothing so good has happened since the historic day three years ago when Louis Derr weighed the world.

There was no June. considerable demand for admission to the Institute in January by students of distinct ability and it was therefore not considered advisable longer to incur the obligation of arranging entrance examinations in December and a schedule of instruction running parallel to that of the regular first-year students through the second and third terms and the entire summer.

N the February issue of the Review, in the account of the New York Alumni Celebration recently held, Dr. Allan Winter Rowe, '01, is credited with having "traced the development of the Advisory Council which he called a debt the undergraduates can never pay to the Alumni." Under date of January 30. Dr. Rowe wrote to the editors of the Review "Ignoring as follows: the infelicity of the expression, the fact is that what I stated was that the Tech Alumni and Undergraduates owed a

debt which they could never pay to Frank H. Briggs of the Class of 1881 for laying the foundations of our present system of athletic administration and for inculcating in those early days the principles of pure amateurism and clean high sportsmanship.

"If this correction could be made it would, on the one hand, pay a deserved tribute to Major Briggs, and on the other would free the writer from the somewhat smug statement which is erroneously credited to him."

Another alumnus has called to our attention the omission from this article of any mention of the names of the Alumni who composed the committee on dinner arrangements. The committee was composed of F. P. Montgomery, '02; R. H. Howes, '03; W. T. Spalding, '10; W. D. Binger, '16; E. P. Brooks, '17, and R. J. Marlow, '17.

The Review regrets these inadvertencies and is glad of the opportunity to correct them.

### Highlights of A Sketching Tour In France

Penned and Penciled products of a recent journey

There seem to be two alternatives to the wayward sketcher who in-

tends to profit by his sejour in Europe. He can tear madly about, get his passport luxuriously decorated with rubber stamps, see a great deal more than he can remember, and, between the hurry and hullabaloo of packing and unpacking and seeing things in company with the elderly touring party from Oklahoma, get precious little time to study what he sees, much less sketch

And then there is the more placid course of being a semisedentary soul, spending a leisurely amount of time in any corner that appeals to one's fancy and leaving only when the spirit moves.

The latter course proved in many respects to be the happeir. No one has a better opportunity to make friends than he who camps himself on the street corner and attempts to show graphically his appreciation of a town's beauty.

One's first friends, it was the writer's experience, were of course the children. Then the town mongrels, then the village sots and finally, if fortune smiled, a dazzling demoiselle or so. The latter rarely proved anything but a joy unceasing, but the predicament of being the center of interest for a band of romping gamins, with an unsteady souse leering over one's shoulder and an introspective hound or so tasting one's water colors was not always so agreeable. However, the happy fact that one can make friends quickly and lastingly as a campstool pencil pusher is quite as much of a godsend as the realization that there are endless architectural eyefulls about one.

Invitations to the corner cafés were refreshingly frequent, and it was only necessary to sympathize freely with one's companion on the questions of exchange, reparations and the high cost of vin blanc to make such occasions completely and cordially successful. One afternoon I was sketching a rambling old Francis I house, when the owner thereof came forth, radiating smiles, and asked me into the neighboring café for the customary "petit verre." Many complimentary things were told me, so many in fact that I foresaw something embarrassing in the immediate

By SAMUEL CHAMBERLAIN, '18 Illustrated with sketches by the author



This article is an abridgment of one appearing in recent numbers of The American Architect and The Architectural Review. The Technology Review is indebted to the author and the original publishers for permission to abridge the article and reproduce a number of the drawings which accompanied it.

future. And surely enough, the oratory waxed warmer and shortly I was being urged most enthusiasti-

cally to buy the house, courtyard, stable and all. It took the time for two more "petits verres" to convince him that all Americans were not millionaires.

Two medical students with a tell-tale sparkle in their eyes gazed over my shoulder one sunny morning and after sparring verbally for some time, invited me over to their quarters to inspect what they termed a rare old manuscript which had fallen into their possession. It was indeed a rare bit of parchment, cracked and twisted and yellow, with vague and awkward designs printed upon it in red and blue. I expressed much interest and spoke as charitably, if guardedly, of its artistic worth as possible. Whereupon they explained in a most vivid manner as to its origin. It seems that there is a State prison in the vicinity, boasting a certain number of executions per annum. The corpses of the criminals are afterward transferred to the medical school for purposes of dissec-tion. And it happened that one of the unfortunates had been a sailor, and that the quaint old piece of parchment that I was holding in my hand was none other than the tattooed epidermis from the gentlemen's chest.

Once I had occasion to visit the Hotel de Ville in a little town in the Touraine, in search of a "Carte d'Identité." Quite coincidentally the town mayor proved to be a grizzled old stretcher bearer whom I had known in the French army. Occasion for another small glass and many expressions

of mutual esteem. The next day I was rather startled to hear the town crier rumbling about the town, reading something from a scrap of paper concerning a "dessinateur américain who is honoring our city for a short stay. Any courtesies that may be shown him will greatly favor his excellence, the mayor." to the observation that one of the delightful things about French cordiality is that it assumes so many unique forms.

One runs something of a peril of falling into disfavor, however, when the matter of measuring comes up.

Unless elaborate diplomatic preparations were made, there seemed invariably to be an irate custodian upon the scene to demand a detailed explanation, especially if that villainous looking object known as a moulding gauge happened to be in use. The very sight of that treacherous looking affair seemed to inspire distrust.

One of the nicest towns on the Loire, and one of the most dramatically placed chateaux, is found in Amboise. There is much of interest here, varying from a decrepit old clock-tower and a Hotel de Ville that glories in its historic past, to cave dwellings and Roman caverns. The dominating note, of course, is struck by the chateau, which bounds up mightily from the old houses lined up at the riverbank, employing vast vertical areas of retaining wall before even the windows of the lowest dungeon make their gloomy appearance. Amboise has an extraordinarily interesting profile, for

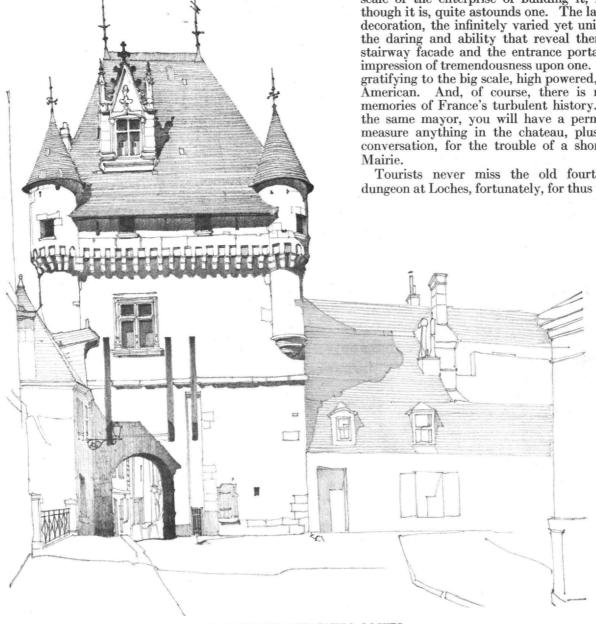
added to the mass of the chateau proper is the delicate outline of the tiny flamboyant Gothic chapel and the massive protruding bulk of the stone well that houses one of the few spiral roadways intended and used as a means of ascent for whole teams of horses and their accompanying loads. One is at loss to know with which to be the most impressed, the stereotomical accomplishment of effecting such a spiral roadway, or the infinitely fine stone carving, lacelike to an incredible degree, found in the jewel-like little chapel. Due perhaps to the fact that its present master, the Duc d'Orleans, may be a somewhat soured gentleman, Amboise is one of the few chateaux where it is "dé-

fendu" to sketch within the walls.

Keep going and you arrive at the busy little city of Blois, so well known to many of the doughboys, and well liked by nearly everyone who visits it. from the chateau, there is enough here to keep your pencil jumping for a week. Old half-timbered houses are thick and there are plenty of picturesque twists in the streets. Everything about the chateau of Blois one associates with the word Magnitude. The very scale of the enterprise of building it, many-perioded though it is, quite astounds one. The lavishness of the decoration, the infinitely varied yet unified ornament, the daring and ability that reveal themselves in the stairway facade and the entrance portal, all leave an impression of tremendousness upon one. Blois is highly gratifying to the big scale, high powered, mile-a-minute And, of course, there is none richer in American. memories of France's turbulent history. If Blois has the same mayor, you will have a permit to draw or measure anything in the chateau, plus an agreeable conversation, for the trouble of a short visit to the

Tourists never miss the old fourteenth century dungeon at Loches, fortunately, for thus the privilege of

> listening to the world's most sympathetic guide is not denied them. This venerable and tender-hearted gentleman, albeit, he is the jailer for the handful of petty prisoners still confined there.almost bursts into tears as he graphically describes the misery and torture that once were the order of the day for the unfortunate enemies of the ruling power. Some



LA PORTE DES CORDELIERS, LOCHES



and an atmosphere of its own. Here are to be found street upon street of old houses, many of them halftimbered, dating back dim centuries and marred by but few scars of the restorer's zeal. The French government has rescued a few of the finer specimens on the eve of their destruction by the house wreckers. They still stand, not quite so staunch as at one time, but still entirely capable of supporting themselves and their inhabitants. Chinon clusters in an intriguing fashion between a precipitous hill, from which the ruins of the chateau rise forth, and the banks of the placid little river Vienne. Behind the well-sheltered esplanade one encounters a maze of jagged streets punctuated now and then with a tiny square planted with weird, stunted old trees that look for all the world as though they had been especially conceived by Arthur Rack-

In the other direction from Paris are two towns, Provins and Senlis, which are almost inexhaustible sketching grounds. Provins, especially the old town on the hill, possesses a wealth of simple old houses with delicately tinted stucco walls. The many different plastered surfaces, some tinted a yellowish pink, others in various grades of ochre and brown, with an occasional flash of pale mineral green or blue, form luminous water color subjects on every side. Three or four

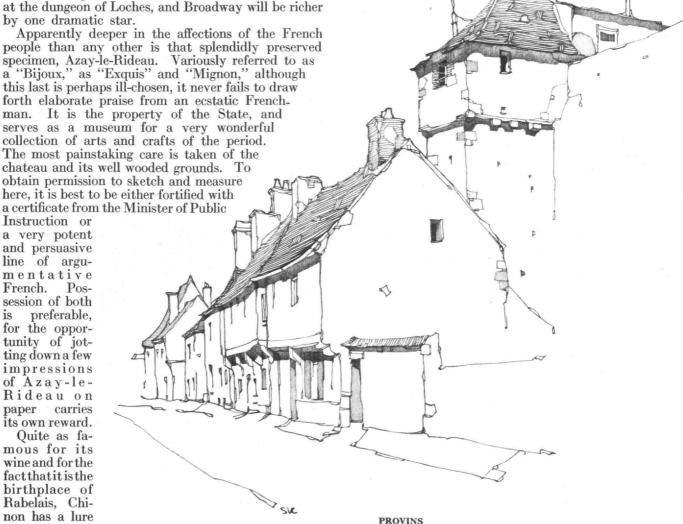
day a theatrical producer is going to see this guide demonstrating the demoniacal instruments of torture at the dungeon of Loches, and Broadway will be richer by one dramatic star.

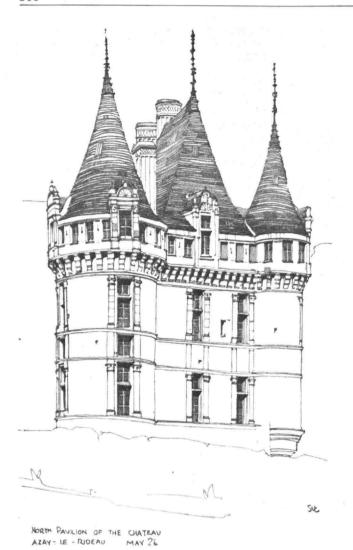
Apparently deeper in the affections of the French people than any other is that splendidly preserved specimen, Azay-le-Rideau. Variously referred to as a "Bijoux," as "Exquis" and "Mignon," although this last is perhaps ill-chosen, it never fails to draw forth elaborate praise from an ecstatic Frenchman. It is the property of the State, and serves as a museum for a very wonderful collection of arts and crafts of the period. The most painstaking care is taken of the chateau and its well wooded grounds. To

Instruction or a very potent and persuasive line of argumentative French. Possession of both preferable, for the opportunity of jotting down a few impressions of Azay-le-Rideau on paper carries

Quite as famous for its wine and for the factthatitisthe birthplace of Rabelais, Chinon has a lure

its own reward.





handsome church towers are here, and a lofty and formidable old XII century monument, boasting a very black history, known as the Tour de César. It requires a bit of imagination, but one quite readily can picture

a starved face behind each of the tiny holes in the masonry that once served as daylight and ventilation for the unhappy prisoner within. In the lower town is a rambling old XIII century church, the lines of which remind one forcibly of a circus tent. String upon

string of decapitated figures over the main entrance portal recall to mind the rayages of the Revolution.

Not on the beaten track of tourists, and consequently little known to many Americans, the quiet city of Vendome stretches itself over a network of tiny streams, by virtue of which fact the place is enriched by several delightful old bridges. It was the writer's experience that Vendome offered as good a hotel and as charming a scattering of neighboring villages as any town in the Touraine. A few kilometers away are three most unusual villages. Lavardin, with its baked and blistered Romanesque church, and the huge towering mass of ruins that was once a stately and feudal chateau, is perhaps the most picturesque. The scale of this impressive heap of stone is tremendous. One immediately wishes that Frank Brangwyn had been here and had etched his impressions with characteristic vigor.

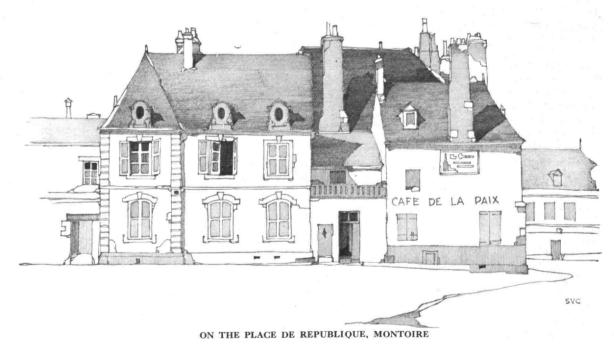
Three kilometers away is a larger village, Montoiresur-Loir, with dim ruins giving a strange profile to the hill that rises up behind it. A good day's sketching can be found among the old houses, which seem to possess a charm distinctly their own. By snooping about with sufficient zeal, one can stumble upon an unheralded little farm building here that turns out to be the XII century Eglise Saint-Gilles. A damp and dingy little structure, with low massive vaults, it betrays not the slightest restoration. The mottled remains of some very gaudy painted ornament still

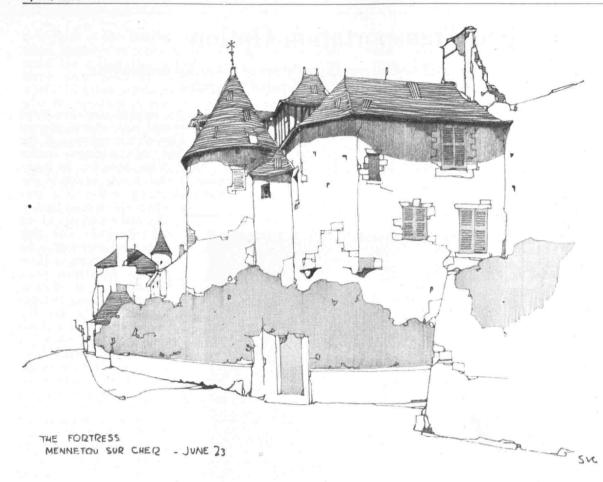
cover most of the wall surface.

To complete the trio of villages, there is Troo near at hand, offering another Romanesque church, and

much pastoral charm.

Vendome itself is rich in old houses of strange profiles and angles. In its cathedral church, however, lies the big surprise. One's breath is fairly taken away at the first sight of it. The West facade is of the last, most flamboyant Gothic, fragile and lacelike and hopelessly complicated. One observes the bewildering complexity of the tracery in the central arched window and wonders how in Heaven's name such a network can solve itself. The richness of the entire stonework is astonishing, and it is in a state of excellent preser-





vation. But adjoining the West front, quite by itself, looms up the gratifying surprise in a vast single

Romanesque spire, utterly simple and statuesque and magnificent. Very pure in design, and mighty in scale, these eighty meters of sunbaked stone tower far above the rest of the town.

More recent scars of war are evident in the wooded city of Senlis, the point that marked one of the deepest advances of the Germans in 1914. The cathedral, of course, needs no lily painting here. It stands unblemished by the Germans even though they made total wrecks of all the public buildings and gutted dozens of houses with flames in the few days they were in possession of the town. One is intrigued by the adaptations made of the shells of one-time churches in Senlis. There is one that has been magically turned into a cinéma where performances, logically enough, take place on Sunday night

OLD TOWER, LOUDUN

only. A second is almost lost in the maze of houses which have sprouted up inside and outside the walls of its roofless nave. Its gaping, pointed arches, already devoid glass for centuries, pop forth between gables and chimney pots and lend an air of the picturesque to an unconsciously handsome heap of houses below them. But the third, an entirely lovely little Gothic church, one that would be treasured beyond words were it to be a heritage of our

country, afflicts one with an undeniable regret. For here is the town market. And fish and cauliflower

now flourish where once did founts and candlesticks.

Hard things are sometimes said about some of the more recent French architecture, but look at the new railway station at Senlis, and decide if there is not a great deal that is praiseworthy therein. It has turrets and towers and flèches and spots of brilliant color, but it is essentially and effectively a station, and after a few days the realization seeps in that it's a darn good one.

Senlis, indeed, has bitter memories of the war, as its cemeteries and a stone wall, against which its heroic mayor was executed, will testify. But there is a note of triumph in a memorial tablet which adorns the massive gateway of the town's most pretentious mansion. For it was from this house that Marshal Foch drove forth to sign

the Armistice.

## The Transportation Option

Details of the new Course offered by the Department of Electrical Engineering in conjunction with the Boston Elevated Company

Recently the Massachusetts Institute of Technology embarked on an educational scheme in connection

with its courses in Coöperative Electrical Engineering which is not only novel, but which has far-reaching possibilities of further development and importance to the transportation problem of American cities.

Nearly four years ago the Electrical Engineering Department inaugurated the coöperative course in Electrical Engineering in connection with the General Electric Company. In accordance with this agreement the Institute each year has been placing a selected group of forty juniors in Electrical Engineering in the General Electric Shops at Lynn, Schenectady, Pittsfield and Erie for threemonth periods. For three years these men spend alternate terms of thirteen weeks each at the Institute and at the various shops of the General Electric Company, interleaving the instruction in theory with engineering practice in the manufacture of electrical machinery and appliances. Two years ago a similar course was inaugurated with the Boston Edison Illuminating Company. Both of these courses have already proved their worth to the students and to the Company.

This fall a third option was instituted whereby the same arrangement was made with the Boston Elevated Railway Company. Mr. Edward Dana,

the General Manager of the Boston Elevated, is Chairman of the Educational Committee of the American Electric Railway Association, one of the largest organizations of its kind in the United States, which is composed not only of members of electric railway companies but also of all manufacturers of transportation appliances used in electric traction, from generators to car wheels. After a long period of study this committee came to the conclusion that one of the greatest benefits which could be conferred upon the electric railway industry would be the introduction of young engineers into the organization of the various operating companies. The infusion of new blood into an anæmic patient is always fraught with danger, and

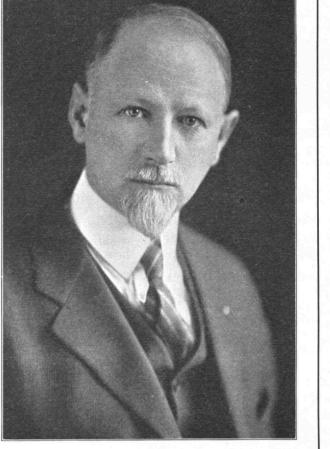
By WILLIAM H. TIMBIE, B.A.

Associate Professor of Electrical Engineering and Industrial Practice

like every surgical operation must be performed with utmost precaution. The electric railways of the

country seem to consider that young engineers are the new blood needed. They must, however, be introduced into the company in such a way as not to disrupt the present organization, but rather in a way

which will increase the loyalty and confidence of the old personnel. This plan of gradual introduction by alternate periods of three months for three years seems to be the solution. Accordingly, since October 1, 1922, not a day has passed in which a Tech student in the Electrical Engineering Department has not acted as conductor, motorman, starter, or guard on some division of the Boston Elevated lines. The course of training laid out for them after they have completed the first two years in the regular Electrical Engineering course includes experience of from two to five weeks in the following departments of The Boston Elevated: the Track Department, at track building and welding, in the carhouse pits, armature and machine shop, in the transportation department as switchman, conductor, motorman, in the power stations and substations, in the electrical engineering department, architectural department, Civil Engineering department, and finally a period in the General Manager's office.



PROF. WILLIAM H. TIMBIE
Who is in charge of the latest Cooperative course
in Electrical Transportation

When a young man, who has started as a junior upon this coöperative course, completes three years of this kind of training, he should be well on the road toward becoming a high class executive, thoroughly familiar with the The whole theory of the cotransportation game. öperative courses, as conducted by the Electrical Engineering Department, is that a man shall receive the proper training in science and its application, which will enable him to analyze situations accurately, make decisions promptly, and act with confidence upon these decisions—whether the problem be one concerning men, methods or materials. reason, in order to be sure that he have a proper foundation in theory and science, a student must spend

two years at the Institute pursuing the regular Electrical Engineering course before he is allowed to enter upon the coöperative period. He must then spend three more years in accomplishing his coöperative work. In other words, the Institute does not believe that the practical experience should be at the expense of his theoretical instruction, but rather in addition to it, and supplementing it. It is for this reason that the men in the coöperative course are required to take one year more of electrical theory than is required of the men in the regular courses. In this respect, it differs from other coöperative schemes.

A word about the opportunities for engineering in the transportation field. Next to the development of our manufacturing industries, there is probably no field of endeavor so vital as that of providing transportation between factory and home for the millions upon millions of industrial workers upon whose yearly output the prosperity of the country depends. Large as our manufacturing and commercial centers are at the present time, they must become still larger and more numerous. Along with this industrial growth must take place the development of the territory surrounding these industrial centers into pleasant and

healthy home sites. The maintenance of prosperity and a proper scale of living depends largely upon the rational development and successful operation of electric street railways and suburban lines between the factories and the outlying suburban districts. Years of profound study into the passenger and freight transportation problem of our country will well repay engineers of the highest type. The man who works out a phase of the problem which has to do with the traffic through the business sections of great cities, alone, will have made a name for himself.

This new course in connection with the Boston Elevated Company and the American Electric Railway Association presents the beginning of an effort

toward the solution of these problems.

It will be perhaps interesting and instructive to learn of the experience and emotions of a man who has already been put through the pace of this new practice school and has emerged as a combined motorman, conductor, guard, station agent, signal man and office clerk. The testimony of his experiences is appended to this article and should, I think, give the reader an insight into the practical workings of the course as it has been established.

So much has been written and spoken concerning the value of a coöperative practical education that anything

I might be able to say would be in the nature of repetition. In the interest of those who are contemplating such a step, however, these experiences of a rank outsider in the field of practical business may be worth while.

Several months ago the Electrical Engineering Department of the Institute, working in conjunction with the Boston Elevated, decided to open a new option in Course VI-A (the five-year coöperative course in electrical engineering). This option was intended to cover a field similar to that of the options of the General Electric Company and the Boston Edison Company. After careful consideration and many conferences, the Boston Elevated, in the person of Mr. Edward Dana, decided to start the ball rolling; consequently, the first of October found me in the full regalia of an employee, with much apprehension and no little doubt in my mind as to the value of the step I was taking. I decided, however, to get as much knowledge and experience as my short time would allow.

My first official position was that of conductor. In this capacity it was necessary to study equipment, time sheets, schedules, operation and maintenance, as well as to be able to make change and say, "Fares, please." I went through the hiring department, took the ground school work at the Boston Elevated School for conductors and motormen, and finally served an apprenticeship under an old veteran,—a capable, kind and conscientious teacher. One learns many things. There are always, for example, some people who try to beat the game. The motto with this type is, "Be gentle, but firm, very firm." There is a certain woman in a near by suburb who is known all over the line for her efforts to dodge the cash box. One of the men will stroll into the lobby and say, "Well, I had our friend Mrs. Blank this morning. Same old game." funny part of it is that she apparently takes it as a game; she wins when she escapes notice and loses when she is caught.

Move Up Forward, Please! As time went on, and the men began to take my presence as a matter of course, I began to find the strong

spirit of loyalty running through the organization. A straggler who had missed his car would drift into the car barn where the men sat around reading, playing checkers or smoking as the whim seized them, to the accompaniment of a scattered chorus of sarcastic remarks, all given and taken in a spirit that showed they were working together. About the first thing that I learned from the men was that they were proud to be working for the Boston Elevated and that they had infinite faith and trust in their General Manager. "Why," I said to one who seemed to be the ringleader. "do you like Mr. Dana so much?" His answer showed me what I had already gathered. "Because there's a man who will treat you square and give you another chance when you're out."

After ten days under his hand I was pronounced an efficient conductor and was promoted to motorman. After running "on the front end" for a week I began to be able to slide right up to the marker and stop without throwing my passengers all over the land-scape. The motorman's job I found much more interesting than the conductor's. There was always something doing and there was never any way of knowing at just what moment some emergency would require quick action. The mentor who taught me the work at the front end was just as capable as his predecessor, and as thoroughly intent on making me a competent

hand at the job.

The next position opened to me was in the office of the Superintendent of Division Two. Mr. Kelley, the Superintendent, gave me the run of the office (supervised, of course) and soon the switchboard, filing cabinet and typewriter came, in rotation, under my care. After graduating from filing clerk, typist and operator, the general system of Division Two was a fairly open book to me. Here in the office, as everywhere else in the system, I was treated as an equal and made to feel welcome. This kind of a reception went a long way towards helping me to make a success of the work.

After I left the office I was in turn Inspector, Station Helper and Guard. At the time I was working at the Park Street station, the Harvard football games were the bane of my existence. Here I received my initiation to what mob spirit was like, and, inciden-

tally, how it was to be handled.

This ended the surface instruction. On the following Monday, I reported to the elevated at Sullivan Square to start work as a guard. Of course it snowed the first day. As the hundreds of people got on and off, snuggly wrapped in their coats and furs, I stood between the cars punching the buttons that opened and shut the doors, and envied them. The floors of those cars were cold, especially the cement ones, and many times that day I cursed science for displacing wood with steel and cement. There was little to learn on this job save the general principles of courtesy and attention to business that had characterized previous positions.

On the elevated, the men furnish their own amusement more or less. Occasionally, something happens to liven things up and relieve the monotony. On my second day as guard just as I was leaving City Square, inbound, a lady of about sixty years came around between cars as I was closing the doors. "Young man," said she, "I surely did enjoy that ride. The expressions of your face were beautiful to watch." The car rolled on and she waved her hand. Unfortunately, the man who was breaking me in heard every word. For the next two days I certainly thought some hard thoughts

about that woman.

Some people I have seen should have the Nobel Prize for determination. One afternoon just as the stores were closing, a heavy rain started. The car was crowded and a rather large woman who got on at one point filled it to overflowing. She was inside, but this was not enough. She wanted a seat. Her umbrella was soaking wet, so grasping it firmly in one hand, she reached up and caught the strap with the same hand, holding the rain shield so that it dripped a tiny stream of dirty water down the neck of the man occupying the seat she hoped for. Seeing the water was taking the desired course, she looked unconcernedly at the advertisements and waited—not long, either. Two people had a good laugh, at any rate—myself and No. — who was teaching me how to push the buttons.

Two or three days later I moved up to the front end

of the train and "took the handles."

There is more difference than is at first apparent between running a surface car and an elevated train. There are no teams or trucks to be watched for, but other things arise to take attention. The technique of handling seventy-six-foot cars is necessarily much different from that required on one of the center-entrance surface cars. On the elevated structure a derailment or other mishap is apt to be more serious, and consequently an elaborate system of signals is necessary.

After three days as motorman I was switched to the signal tower. Here I directed traffic for a day; studied the mechanics of the problems that arose and with the help of the regular men mastered the general idea of the signals used. To a passenger riding along comfortably in the cars it never occurs that each step of his progress is so carefully guided and safeguarded against accident. It has been many years since a really serious accident occurred, which speaks volumes for the equip-

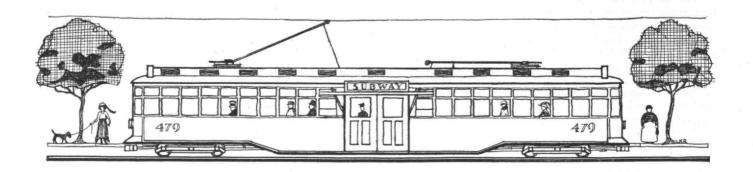
ment and personnel of the road.

After initiation into the principles of the elevated on the front end and rear, I followed much the same program as on the surface. The equipment was entirely different and had to be studied anew. The organization is separate and distinct from the surface lines. Here, as on the surface, I was never treated as a rank outsider prying into secrets. Even the men belonging to a union as strong as theirs did not resent my presence among them, although at first there were many doubtful glances and whispered conversations. After the men put their O.K. on me, I progressed more rapidly. Little things that experience alone can bring out were shown and taught me, not as though the teachers were forced to help me, but because they wanted to and were interested in my progress.

Soon the time to return to school approached and I had to leave work for a term at the Institute. I am endlessly thankful for having had the opportunity to study such an organization as the Boston Elevated at first-hand and for having been helped and guided in such an efficient manner. Moreover, I feel that I have made some friends among real men and have gained at least some little business insight. That first year out of college will seem infinitely easier now.

And the life of an elevated worker isn't all blue. Even when you step on the third rail there is always a chance of falling in a pile of soft coal, somewhere

underneath.



### The Ninety-Fifth Meeting of the Council

Committees report, and motions are passed, and other things happen

The fact that the ninety-fifth Council Meeting (whose date was February 26) was held in the Faculty Room of Walker Memorial was not permitted to pass unchallenged. A simple fact, and heretofore, incidental to the chronicle. Now a matter for fierce, par-

tizan, political debate.

The prelude to this challenge was itself a strange thing. I. W. Litchfield, '85, who was on President Carlson's mental program as the Salad Orator of the evening, was seized with a sudden disaffection just before the appearance of the salad (a crisp and satisfying salad, too) and refused to utter a word. The Council could have been no more surprised if the journals of the earth had bound in their bushings. Members crowded anxiously about Mr. Litchfield and inquired solicitously for his health, which he declared, enigmatically, to be excellent. When the confusion subsided, A. T. Hopkins, '97, rose in his stead.

It was Mr. Hopkins who voiced the challenge to the primacy of the Faculty Room of Walker Memorial as a meeting place for the Council. He deplored the difficulty met, by those whose businesses were in Boston, in converging upon Cambridge for dinner, and went so far as to call the shores of the Charles River Basin a God-Forsaken Place. Mr. Hopkins urged that the Council consider a Boston site for its eatings and meetings, and sought his seat. Mr. Litchfield shook off his aphonia for a moment to echo these sentiments. Merton L. Emerson, '04, likewise concurred, and suggested several other practices by which the Council could perhaps increase the attendance at its meetings.

Walter Humphreys, '97, Secretary-Treasurer of the Council, next presented the report of the Nominating Committee of the Alumni Association. Of chief importance was the presented nomination of George L. Gilmore, '90, as President of the Association for the approaching new fiscal year. The ballot was announced to be circulated on March 19. A future announcement on the new officers of the Alumni Association will be made in a forthcoming issue of the Review.

Mr. Emerson next presented the report of the Council's Committee to Consider the Question of an Alumni Director, which recommended that the post of Director remain uncreated for the present and that, in substitution, the "President of the Alumni Association, by and with the consent of the Executive Committee, be authorized to appoint a General Secretary of the Alumni Association, who shall give his whole time to the work of the Association."

The report continued:

"The duties of the General Secretary would be those now performed by the Secretary-Treasurer of the Alumni Association and in addition such duties as the President of the Alumni Association should assign to him."

On motion of W. C. Brackett, '95, it was voted to

refer the report to the Executive Committee.

The meeting then composed itself to listen to an address by the guest of the evening, Mr. Frederick L. Allen, Secretary to the Corporation of Harvard University, who spoke on the problems of Educational Publicity. Mr. Allen, a former Managing Editor of the Century Magazine, has for some time been in charge of the distribution of news emanating from Harvard,

and gave the Council a penetrating insight into the methods by which he has solved the Harvard problem. "Educational publicity is not competitive," he said, "and it should never aim to prove that 'this institution is better than that.' Publicity is, however, the basis of public sympathy and support. Only by this method can an institution make known its opportunities."

Mr. Allen warned specifically against two errors: first, the error of thinking that a university need an "advertising department," and second, the error of believing that the strenuous publicity methods of a campaign can be continuously sustained. "You can't lash the loud pedal down," he said. "It is necessary always to err on the side of understatement."

Mr. Allen spoke of the emphasis which he strove to place on the doings in the educational main tent. Side shows such as athletics received ample attention without the necessity for any action from his office, which confined itself more to terse news accounts of faculty appointments, scientific researches and the like.

Following Mr. Allen's close, there was a flurry of questions. Then, Mr. C. M. Stow, the Managing Editor of *The Christian Science Monitor*, and the director of the Institute's publicity, spoke briefly on the similarities and differences between the publicist's problems at Harvard and at Technology. He urged the necessity for the employment of a man who could, in future, give his full time to this work for the Institute.

In the absence of Chairman J. W. Rollins, '78, of the Council's Committee on Dormitories, Albert F. Bemis, '93, a member of the Committee, spoke informally on the subject. Following the meeting, Mr. Bemis made the following statement to the Review:

"The need for dormitories at the Institute is recognized by everybody, whether members of the Corporation, Faculty, Alumni or undergraduate body. Undoubtedly this matter will receive the serious and active attention of Dr. Stratton. I was very hopeful until recently that something might be accomplished in the form of one or two more dormitory units for occupancy next autumn. The prospect for this is now not hopeful, but it should not lessen, but rather intensify, our interest in the problem and our effort to solve it soon in the form of actual dormitories.

"Following the intermittent studies that I have made of our housing problem, I have recently evolved floor plans of a typical dormitory unit or section of five stories for housing eighty men, or for sixty-four men if of four stories. These plans are merely modifications of the principles involved in the present dormitories, modified, however, in harmony with the experience we have gained in running them. Further than this, I have developed a plan for assembling such units into quadrangles, the entrance to which would be through or by a common room or lounge for the use of all the students of that quadrangle. Both in the case of the floor plans for a standard unit and for the quadrangle scheme, the plans mentioned are intended to be illustrative of an idea and to be subject to remolding to fit the necessary limitations and conditions of location and perhaps of design.

"Defects or features of the present dormitories which have been found to be unsatisfactory will be corrected in the dormitories built according to the plans mentioned above. It seems to me needless to indicate here what those defects or unsatisfactory features are. It is desired at this time chiefly to concentrate attention upon floor plans and arrangement of quadrangles for administrative purposes.

"In submitting this statement I am acting solely as an individual. In other words, there is nothing

official in connection with this statement."

By which methods, Mr. Bemis made evident, he would like to see the "God-forsaken place" mentioned earlier in the evening by Mr. Hopkins made a trifle more Godly. It is hoped that proposed plan may be reproduced in the Review at a later period.

Dr. Allan Winter Rowe, '01, hitherto, this evening, unheard, rose to present, on behalf of a special committee, two pieces of jurisprudential composition whose complexity necessitates reproduction in full.

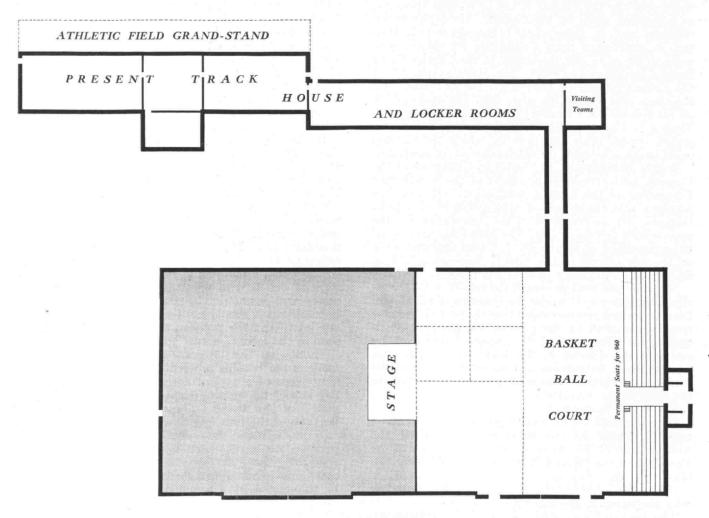
It stands upon the minutes:

"VOTED, that the Alumni Council, approving "of the plan presented at the January meeting "for the housing of the Undergraduate Publica-

"tions, authorize the President to appoint a "committee of three to prepare a petition stat"ing the details of the same for presentation to 
"the Council for its approved and subsequent "transmission to the Corporation."

"VOTED, that it is the sense of the Alumni "Council that the erection of a new and ade"quate gymnasium on the present Institute "property and in immediate proximity both to "the Educational Building and the present Ath"letic plant shall be made an integral part of "any plan which may be formulated for the "erection of dormitories for the student body."

When the Council had disposed of Dr. Rowe's motions, Mr. Emerson proposed a rising vote of thanks to Mr. Bemis for his dormitory researches. It was given, to the accompaniment of much enthusiasm, applause and scraping of chairs. By this time, Mr. Litchfield's thoughts had risen to the level of speech and he addressed the Council for several moments in praise of its activities. The Council listened modestly and adjourned at 9.45 p.m.



THE NEW, IF TEMPORARY, GYMNASIUM

Whose maiden name was the Seaplane Hangar. The manner of its conversion was described in the March Review.

The shaded portion represents space still devoted to storage.



## TECHMEN THE PUBLIC EYE



#### LOUIS S. CATES, '02

This is a good deal to say about a voice, but you must remember that this was an extremely unusual voice. We have felt free to be complimentary because

the description of the voice is the result of personal experience; we can add that those who know the possessor of the voice best say, very earnestly, things that lead to the conclusion that in this case at least the voice is a very accurate index to the character of the man. Quite as convincing as the testimony of his associates at the top of the industrial ladder is that of one Jerry Williams, a "chute drawer" who once worked in the old Boston Consolidated mine in Bingham and then went to the Ray Consolidated to work under his old boss, the owner of the voice. He, as you may suspect, was Louis Shattuck Cates, now general manager for the Utah Copper Co., a project in which more earth will be handled than was moved in the digging of the Panama Canal. Cates is also consulting engineer of the Ray Consolidated Copper Co., president of two miningtown banks, and director of a dozen assorted corporations.

Mr. Cates was born in Boston, Mass., on Dec. 20, 1881, and after the usual vicissitudes attend-

ant upon growing up in that attenuated atmosphere, graduated from M. I. T. in 1902. After a brief sojourn in Parral, Old Mexico, he went to Bingham, Utah, for the Boston Consolidated, becoming general manager in 1909. When the Utah Copper Co. acquired the Boston Consolidated, Mr. Cates was sent to Ray, in Arizona, where he developed the "Ray" system of shrinkage stopping and block caving. In 1919 he went back to Utah as assistant manager for the Utah Copper Co., and on June 1, 1922, he was made general manager. —Engineering and Mining Journal-Press.

#### MATTHEW C. BRUSH, '01

Matthew C. Brush of New York has recently been elected president and chairman of the board of directors of the American International Corporation.

News of the election was received in New Orleans by James M. Le Clare, general manager of the Amsinck & Company importing and exporting offices here.

This election placed President Brush, at the age of 43, at the head of a \$50,000,000 importing and exporting corporation, of which Amsinck & Company is a sub-

sidiary.
President Brush is one of the remarkable figures of American foreign trade. Born in Stillwater. Minn., he was educated in the public schools there and in Chicago, and is a graduate of the Massachusetts Institute of

Technology. He has been successively newsboy, hotel clerk, steamship clerk, purser, machinist's apprentice, roundhouse foreman of Union Pacific, general foreman of Rock Island, assistant to president of Boston Suburban Company, vicepresident and general manager of Newton Street Railway, general manager of Buffalo and Lake Erie Traction Company, assistant to vice-president, second vice-president and vicepresident of the Boston

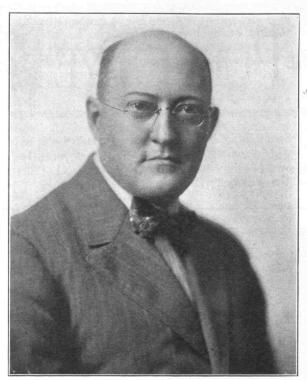
American International Shipbuilding Corporation, to construct a shipbuilding plant and 122 ships at Hog Island.

On completion of this contract, Mr. Brush returned to New York as senior vice-president of the American International Corporation and assumed charge of its subsidiary and trading companies.

LOUIS SHATTUCK CATES, '02 Concerning whom we print this month an abstract of what Engineering and Mining Journal-Press recently said under the title of "Mining Engineers of Note"

Elevated Railroad, and was appointed president of the Elevated on September 15, 1916. On December, 1913, he was elected president of the

-New Orleans (La.) Times-Picayune.



JAMES PHILLIPS BARNES, '05, VI President of the Louisville Railway

#### J. P. BARNES, '05

Jim Barnes, President Louisville Railway, was elected last week to succeed Sam Greenland as head of the C. E. R. A. (Central Electric Railway Association). Although Jim considers himself a newcomer in his territory, he has established himself completely in the association by his work for its welfare and his enviable record as a railway executive in Louisville.

Jim Barnes is everything to Louisville because first Louisville was everything to Jim Barnes. It was in July, 1920, that Mr. Barnes left the Schenectady Railway to become head of the Louisville property. He had been there only a few days when this incident happened. Two men stood slightly removed contemplating Mr. Barnes. Said one: "Nice fellow, Barnes; seems too bad, doesn't it?" "Yes," said the other, "it not only seems too bad, but it is too bad." They were referring to the situation which Mr. Barnes had inherited. Moreover, Mr. Minary, the former president, was on record as having said publicly, "My heart goes out to any man who must take the responsibility of the management of a street car company.' Mr. Minary meant it.

An increase in fares had been denied the company. The situation on the whole was a mighty complex one. Dividends on the preferred stock had been suspended in 1918, and shortly before that, the payment on the common stock had been cut off. It was just about this time that Mr. Barnes was offered the Louisville post. Other men would have hesitated, but not Barnes. He fixed his management forces first, and then he took up his case with the city. Meanwhile, the question of confiscation came before the courts and the company secured an order to charge a temporary 7-cent fare. All the time negotiations were in progress looking toward

a permanent settlement, and this was effected last fall with an agreement providing for operation under service-at-cost at an initial 7-cent cash fare, with five tickets for 30 cents, this rate to continue to Dec. 31, 1923. That briefly is the record of Jim Barnes with

the Louisville Railway.

Mr. Barnes is a native of Syracuse, N. Y. He was graduated from the Massachusetts Institute of Technology. His railway work previous to going to Louisville included terms of service with the Oneida (N. Y.) Railway; Syracuse Rapid Transit Company; Syracuse & Suburban Railway; Buffalo, Lockport & Rochester Railway; and the Schenectady Railway. In 1916 he was president of the New York Electric Railway Association.

—Electric Railway Journal

#### CASS GILBERT, '80

Cass Gilbert, designer of the Woolworth Building, suggested recently at the annual luncheon of the School Art League at the Hotel McAlpin, that prohibition might be the death of such rudimentary art as

was to be found in this country.

"My eminent friend, Joseph Pennell," he said, "notes in his recent book on art that the death of Oriental art occurred when Mahomet ordered prohibition upon his people. Now, I wonder if there will be a dry art in the dry country of America. We who are here will not know how the experiment will result, but the children now in the School of Art will live to see the effect.

It was to be inferred from his remarks that he thought the death of American art might be less of a tragedy than the death of Oriental art. He admitted that there were "nice buildings" in New England, but said they were apt to be stupid and too sanitary.

"Considering the knowledge of art in the various nations of the world, such as Italy, France and Belgium," said Mr. Gilbert, "I venture to say without fear of successful contradiction that, as a whole, no people are more ignorant of the arts than the Ameri-

"There are no uglier buildings on the face of the earth than some of those in the central part of the United States. They are at the same time sordid, cheap, dirty and extravagant. There are nice buildings in New England, but they are sometimes stupid

and too sanitary.

"There do exist some beautiful examples of architecture in Virginia and Maryland. The explanation for this lack of beauty is that our instinct for beauty has been lost in the haste for wealth and power. Instincts for the beautiful are lost in the intense concentration of peoples and yet the art of design is as necessary to a community as the art of making a living."

-New York Tribune

#### VICTOR L. S. HAFNER, '18

The Pope did not follow the advice of American architects about completing the dome of St. Peter's. Victor Hafner of the American Academy, in a private audience, pointed out to the Pope that a series of statues at the top of the dome which Michelangelo had designed never were put up. The Pope listened attentively and then replied dryly: "I have ways to spend money where I can see the results nearer than at the pinnacle of spires.'

— New York Herald, Rome Bureau



## UNDERGRADUATES



#### TECH SHOW AND BROADWAY



Photo by Craftsman A ballet "girl" fram Miss Tanner's Aztec interlude in "The Sun Temple"

Tech Show, 1923, The Sun Temple, has had its world première as these lines are written, and is about to set forth, with bands playing and flags flying, for Hartford and New York. On the evening of Saturday, March 10, it was presented to the undergraduates of Simmons College at Jordan Hall, Brookline. It played to a full house, and from all accounts scored heavily. Frank Gage, '23, was greeted with much applause for a burlesque on the traditional ballet, which this year decorates the Show as in years past.

The present indications are that the Show will play to full houses on its trip to Hartford and New York. New York performances are to be given in the ball-room of the Waldorf-Astoria Hotel. For the past several weeks the house has been oversold on the evening performance.

The entire cast, chorus, ballet and orchestra, will leave Boston in a special car on the morning of Monday, March 19, and will arrive in Hartford at noon. There will be a rehearsal that afternoon, and that evening Tech Show will give its only performance in Hartford. Following this the company embarks for New York. This New York performance is the first extra-New England one ever to be given by Tech Show. The support which has already been accorded it by the New York alumni makes it at the moment extremely probable that this New York tour will stay in the itinerary of the Show in future years.

Tech Show has always been a musical comedy, but sometimes a note of extravaganza has been added to the usual social comedy of such pieces. So it is this year; the singing and dancing takes place with a melodramatic background to be taken as seriously as the spectator wishes. The scene is laid in Mexico, where the rose of romance is sometimes adorned with the thorns of political turmoil.

The old legend contained a princess, and this likewise has one, Evelyn Hubbard, the daughter of an oil king. How she meets her prince is the story of the play. Together with her parents and a party of friends

she visits the oil country on the coast of Mexico. The first act is laid in the interior of a Mexican home. The second act is an exterior, before the steps of the Aztec Sun Temple which gives the production its name. It is this act which gives Miss Tanner the opportunity for her Aztec Ballet.

Miss Tanner, besides writing and directing the ballet, has been coach of the chorus. The coaching of the cast has been in the hands of Mr. Ralph L. Harlowe. The music is the product of five undergraduates.

With the exception of the coaches and the actual fabricators of the scenery, Tech Show remains as always completely in the hands of undergraduates. The libretto, lyrics and music are written completely by undergraduates; an undergraduate Stage Manager, with the help of undergraduate assistants, runs the performances; the scenery was designed by undergraduates; the Director is the one man in the orchestra pit who is not an undergraduate.

#### SCHEDULE OF PERFORMANCES, PAST AND FUTURE

March 10 Simmons College at Jordan Hall, Brookline March 19 Parsons Theatre at Hartford, Connecticut March 20 Waldorf Astoria Hotel at New York City April 19–20 Boston Opera House at Boston April 21 Academic of Music at Northampton, Mass.



Photo by Craftsman

HOOD WORTHINGTON, '24 As Senorita Serafina, in "The Sun Temple"

#### THE TECHNOLOGY CIRCUS

The circus has come to be a perennial. The second annual production was held on March 1, with the usual profusion of side shows. Course XV operated a bucket shop, the members of the Chemical Society proved their alchemy in an interesting manner. The Tech established the Red Dog Bar, the T. C. A. ran a hot-dog stand and Technique graciously and gratui-tously distributed ice cream. There were shooting galleries, chariot races, tight-rope stunts, Spanish dances, menageries, African dodgers. There was a remarkable electric horse, Disturber, which Course VI sired. The radio society brought a Tesla coil and added to the evening's excitement by shooting ten-foot sparks at the feet of those who came within range. Prof. H. G. Pearson, Dean Talbot and Bursar Ford acted as judges and proclaimed Delta Upsilon Tutankhamen Tomb as the prize-winning side show.

The circus provided its own police and fire departments, who performed their respective tasks with all possible conscientiousness and assiduity, even jugging the Dean during the course of the evening for some

violation of circus rule. It was a busy evening.

The Circus, which came into being a year ago, is, more or less unofficially a Course VI product. It was, in some quarters denounced last year as part of a mysterious "Shifter" propaganda, which began in the same electrical atmosphere.



Photo by Craftsman
A spectacular moment in the Ballet.

istration.

#### CORPORATION XV

The industrious members of the student body in the Engineering Administration courses, banded together under the title of Corporation XV, again utilized their spring vacation to their scholastic advantage. Their annual spring tour for the year 1923 began on March 15 and ended on March 17. They proceeded first to Springfield, Mass., and visited the plant of the Rolls-Royce Motor Corporation. At Hart-ford they visited the Underwood Typewriter factory and dined with the Hartford Technology Club, and listened to an official from the Underwood Company, who spoke on production. Following the dinner they visited the broadcasting station of Mr. Hiram Percy Maxim, '86. On the next day the Corporation proceeded to New York, and disposed of its time in conformity with a schedule arranged by a committee from the New York Technology Club and Prof. W. L. Freeland of the Institute. By special arrangement the men were given the opportunity of seeing the New York Stock Exchange in operation. They also visited the Bush Terminal and a number of other equally interest-

ing industrial enterprises. The Corporation dined royally at the Technology Club of New York, and heard speakers who included President Gerard Swope, '95, of the General Electric Company and Dr. Davis Rich Dewey, head of the Course in Engineering Admin-

### Fraternity Standings

Showing the Relative Positions of the Chapters at Technology for the past two years

The numerical position attained by the chapters in December, 1922, is shown by the first column of figures, but the names are arranged according to the excellence of the "cross-country" record of the chapter. The chapter having accumulated the smallest number of points as a total of the three listings, stands first.

The June standings were computed by a careful scrutiny of the record of every fraternity man in the Institute. The excellence of each man's marks was multiplied by the number of hours he carried, so that a balance might be struck, taking into account the quantity and the quality of his work. When these figures were obtained for every man in one fraternity, they were averaged. After this average had been completed for every fraternity, the fraternities were ranked in the descending order of their scholastic excellence.

|                        |       | Position<br>Dec., | Position<br>June, | Position<br>Dec., | Position<br>June, |
|------------------------|-------|-------------------|-------------------|-------------------|-------------------|
|                        | Total |                   | 1922              | 1921              | 1921              |
| 1. Tau Delta Phi       | 16    | 3                 | 3                 | 7                 | 3                 |
| 2. Delta Psi           | 19    | 4                 | 3                 | 7                 | 3                 |
| 3. Zeta Beta Tau       | 22    | 9                 | 9 5               | 3                 | 1                 |
| 4. Sigma Alpha Mu      | 23    | 1                 | 5                 | 15                | 3<br>1<br>2<br>4  |
| 5. Chi Phi             | 34    | 7                 | 4                 | 19                | 4                 |
| 6. Theta Chi           | 39    | 13                | 15                | 1                 | 10                |
| 7. Sigma Alpha Epsilon | 39    | 17                | 8                 | 8                 | 6                 |
| 8. Delta Kappa Epsilon |       | 8                 | 12                | 4                 | 22                |
| 9. Phi Kappa Sigma     | 47    | 6                 | . 6               | 16                | 19                |
| 10. Alpha Tau Omega    | 53    | 22                | 17                | 9                 | 5                 |
| 11. Phi Beta Epsilon   | 56    | 25                | 11                | 6                 | 14                |
| 12. Sigma Chi          | 56    | 27                | 16                | 2                 | 11                |
| 13. Lambda Phi         | 58    | 24                | 10                | 17                | 7                 |
| 14. Beta Theta Pi      | 60    | 20                | 14                | 10                | 16                |
| 15. Phi Beta Delta     | 64    | 19                | 7                 | 14                | 24                |
| 16. Delta Tau Delta    | 65    | 12                | 21                | 11                | 21                |
| 17. Delta Upsilon      | 66    | 11                | 20                | 12                | 23                |
| 18. Theta Delta Chi    | 74    | 15                | 26                | 18                | 15                |
| 19. Lambda Chi Alpha   | 74    | 21                | 24                | 20                | 9                 |
| 20. Kappa Sigma        | 76    | 18                | 18                | 22                | 18                |
| 21. Phi Kappa          | 76    | 29                | 22                | 13                | 12                |
| 22. Phi Gamma Delta    | 78    | 23                | 19                | 23                | 13                |
| 23. Theta Xi           | 81    | 16                | 27                | 21                | 17                |
| 24. Phi Sigma Kappa    | 97    | 30                | 23                | 24                | 20                |
| Psi Delta              |       | 5                 | †                 | †                 | †                 |
| Tau Epsilon Phi        |       | 10                | 1                 | *                 | *                 |
| Sigma Nu               |       | 14                | 13                | †                 | †                 |
| Alpha Mu Sigma         |       | 2                 | 25                | *                 | *                 |
| Phi Sigma Delta        |       | 26                | 28                | 25                | *                 |
| Phi Lambda Alpha       |       | 28                | Ť                 | †                 | †                 |
| * No standing          | repo  | rted.             |                   |                   |                   |

† Chapter established 1922.



## ATHLETICS



#### "LOOKING BACKWARD ON ATHLETICS"

The following article is an interview with Major Frank H. Briggs, '81, which appeared in The Tech for March 12. It is reprinted here by permission of the editors.



FRANK H. BRIGGS, '81 One of Technology's most salutary athletic influences

"You want me to tell about athletics, well, it would take a book."

"But if you want, I won't tell all I know, but tell just how the present policy was developed." "There are only a

"There are only a few of us left who started the thing: Jim Rollins, Coleman du Pont, Dr. John Duff, Ev Morss, and a few others.

"In the late seventies and early eighties came the football and tug-of-war teams. The latter was M. I. T.'s real thing; four men on the side pulled on cleats bolted to

the floor. We were New England champions about that time and pulled Harvard off the cleats. (About 1882, I think.)

"You say that's old stuff and you want to know how the present policy was developed! Well, about 1897 matters had reached a crisis—financially, at least. The management had all been undergraduates and had got so far in debt that they owed all they could get trusted for. (Medals, etc.) Something had to be done to steer the students right. A meeting at which there were some of the members of the Corporation, Faculty and Alumni was held in November, 1897, and from this Conference the present Advisory Council on Athletics was created. Members of the Corporation and Faculty were very strenuous in stating that they wanted to have nothing to do with the control of athletics or have membership in the proposed Advisory Council.

ory Council.

"About January 1, 1898, it held its first meeting, at which a Constitution and by-laws were adopted; and is noteworthy that with the exception of minor changes (such as rules regarding awarding insignia, etc.) these have stood the test for twenty-five years without any drastic change. Something to be proud of, eh? Well,

"In 1914 the field and track at Cambridge were built, it took some planning to get a 220-yard straightaway and no one ever suggested space as allotted; to give opportunity for a football field and to every Field event a chance to practice without interference from each other, but it is almost universally adjudged to be the best arranged college track and field in the country, considering its limitations. There is not a college in this country which has its track so convenient to its own buildings.

"Oh, about Field Day? Well, Field Day started in 1886; football game between the freshmen and sophomores, and the freshmen won, and they were so elated that the sophomores rushed at them and some freshman held up a cane offensively and there was immediately a rush for its possession which was the origination of the 'Cane Rush.' This same competition continued (I remember one of the prerequisites was as to which class could smoke pipes on the steps of Rogers), but in 1900 one of the contestants met his death. Dr. Henry S. Pritchett, serving then his initial year at M. I. T., requested the Advisory Council to make up a set of games, insuring, first, safety and, secondly, the greatest possible number of contestants from each class; and further following the Advisory Council policy of getting the men out as long as they do some kind of outdoor exercise.

"The result: Football fifteen, tug-of-war thirty, mileand-a-half relay fifteen, total at least sixty men from each class. This has been the procedure since 1901 and it means that practising before Field Day are double this number of men from each class.

"Under this procedure, fencing, basketball and rowing came to par and retrograded, and other events have wavered similarly. In 1907 came from New Orleans the present Director of Physical Education. He had been a devotee of our theory and policy: the greatest number is the greatest good. It is shown by the broadening of compulsory physical education to allow participation in optional sport activities within reason.

"To those who have borne the heat and burden of the day-often cursed- it is a pleasure; in fact, to some of us old-timers like Dr. Rockwell, Harry Worcester and Dr. Rowe, to laugh at the endeavors of schools with greater reputations (possibly) to show that they are instituters of intramural athletics, and of our Institute Committee (a growth of our Advisory Council on Athletics) and we get almost indignant at such original pretensions of even adjacent colleges. During the first few years of the Advisory Council's control, there was some feeling on the part of the undergraduates expressed at one period as the dictation of the 'Czar of High Street'-but in 1903 Technique stated 'Improvement has been due chiefly to the management of our Athletic Advisory Council. Its policy has often been criticized (sic!), but results have already indicated both its conservatism and its economy!'

"The Advisory Council needed then what seemed like arbitrary decisions and rules, and even today criticisms may be made about the Advisory Council rulings, but I know these are simply a development of the stated policy, and the undergraduates should cheerfully succumb to the inevitable and such based on the past results will turn out to be."



## ORIALCOMME



The

"Some have made the remark in criticism that engineers lack political intuition and ability; I would answer that a Engineer-larger dose of logic and positiveness aping Seal plied to politics would bring great advantages to public affairs," Prince Gelasio

Caetani, new Italian Ambassador to the United States. declared in address at the annual dinner of the American Engineering Council of the Federated American Engineering Societies held at the Chevy Chase Club, Washington, on January 11. The Ambassador, himself an engineer, and for thirteen years previous to the war a resident of the United States following his graduation from the Columbia University School of Mines in 1903, said he was returning not only as a diplomat but as an engineer and a friend of America.

A larger dose of logic and practical sense. This may have been a mere platitudinous prescription concocted for the benefit of a sympathetic audience. We think not. The experiences of the war justified the "technical" man. Even as the study of modern language secured parity with the study of the classics, not merely from a utilitarian standpoint, but as being of equal cultural value, so has the pursuit of a technical degree become recognized as a process which can produce a human being entitled to call himself educated and not merely trained.

Prince Caetani epitomized the cause of this: "I judge that many of my colleagues present at this banquet have followed in life most disparate occupations which often had little to do with engineering; such has been my personal experience during the agitated years since the beginning of the war. Well, gentlemen, we can say that in each and every occupation we have felt and thought and acted chiefly as engineers.

"We pride ourselves in saying: 'Once an engineer, always an engineer.' Whatever may be the course of life followed by one of us, it will always be marked by the indelible seal of the scientific, practical and logical training to which an engineer is subjected during the early years of life."

Witness the increased interest since 1920 of some of our eastern universities who by importation of faculties and greatly increased appropriations have been stressing their engineering schools. Both Princeton and Yale particularly merit such interest on our part. Technology should welcome this competition.

Eight Million After A11?

Several months after the Armistice when the inflation of the country's currency had brought the financial affairs of Technology, like those of every other large institution of learning, to the desperation point, Dr. Maclaurin turned

again to the man who then was known as Mr. Smith. And to him Mr. Smith said words something like, "Well, I will give you \$4,000,000 if you will undertake to raise an equal amount."

The bargain was struck. Late in 1919 when the endowment campaign got under way and the Alumni were asked for aid, it became evident that through them and kindred sources it might be possible to obtain this amount if payments could be postponed over a series of years. Mr. Smith willingly consented that these promises be accepted at their face value in the reckoning to meet his terms. How in this way the \$4,000,000 was secured and how on January 2, 1920, Mr. Smith paid his \$4,000,000 to the Institute (and became George Eastman in the process in order that the Eastman Kodak stock could be legally transferred) is history to us now. Other pages of this issue tell the manner in which this \$4,000,000 from Mr. Eastman has expanded and how it has raised itself by its own bootstraps close to the \$5,000,000 mark.

The figures on the percentage of these redeemed promises still continue to be favorable. It is to be hoped that delinquent payments (mostly deferred for the best of reasons) will soon be forthcoming and that the terms of Mr. Eastman's offer will be truly and finally met in a manner which will express the gratitude of all Technology, not only for his gifts of cash, but counsel.



A State University

The wail for a State University, so recently revoiced, is nothing new in Massachusetts. There is scarcely an oldest inhabitant to whom it is not an ancient rime. We have no doubt its recent reiteration is due to the nationwide postwar influx of students which has still

obtained in most institutions. Perhaps it is not unnatural, in consequence, that there has been raised anew a demand that this Commonwealth provide for its sons and daughters as have Michigan, Illinois, Ohio, Iowa and others.

Two claims seem to predominate among the many that are put forth by the protagonists of this new institution. They are: that the facilities of the present Massachusetts institutions are inadequate and that the expenses of education are prohibitive for the offspring of citizens whose means are moderate. These claims are not the only ones. There are others commonly voiced and, perhaps we may be pardoned for believing, still others which are never voiced at all, but which are more weighty than any of those given out publicly. We do not know, of course; we only note that like so many other governmental matters this one is hedged about by a dust cloud which seems to indicate the presence of some mysterious political significance.

A State Commission on higher education is at present doing some industrious delving. So far as we know, it is doing it well. President Murlin of Boston University is its Chairman, and President Devlin of Boston College is a member. The Commission has had much advice and counsel from experts in Washington and elsewhere. It seems to have lent a ready ear to anyone who has opinions on the subject. It has considered the opportunities afforded and the facilities evident for the establishment of this State University and has wondered whether it can be brought about by the consolidation of present universities into a joint unit owned in whole or in part by the Commonwealth but controlled entirely by Commonwealth functionaries or whether it has got to be built brand-new out of the air. Possibly the report of this Commission will be public by the time these words see print.

This Commission has had many public hearings in different cities. It has quizzed officers of existing Massachusetts institutions, has sent out questionnaries and spent much time compiling data by other means. Yet,—and this is curious because of the widespread political turmoil which the idea has created,—at no one of these public hearings was there any spontaneous overcrowding of the auditorium. If the size of these audiences is any indication, the citizens of the Commonwealth are not so avid in seeking for a new fountainhead of learning as might be supposed.

Some of the findings of the Commission were made public late in February and made evident that the Commission had in some ways done its job better than some would have it done. That is, they indicated without much doubt that present institutions of Massachusetts afforded to citizens in search of education, almost every conceivable type of instruction, that they had been physically able to admit all applicants qualified to pass entrance requirements and that also they had been willing to, whatever the race, creed or color of the applicant. Indeed, dormitory accommodations seem to be the only pressing equipment need brought out by these findings. Omitting consideration of the

belief that the post-war inflation affected college registration figures as it affected almost everything else (Technology has already found this correct), our present institutions seem to be able to do their jobs in the future as competently as in the past.

The expense situation is different. An education costs more than it did. Whether or not this cost is proportionately higher than that of other commodities need not concern us. Neither need we be concerned with the idea that a twentieth-century boy or girl is doomed to a life of a down-trodden denizen of the sweat-shops if denied a college education, or that mediocre minds must be excluded from present institutions because they hinder the brilliant. The opinion raised by the proponents of the State University is that some means should be provided whereby those endowed by nature to better their lives by education should not be prevented from attaining this benefit because they lack money.

But who disbelieves this? For years, as at present, every effort has been made to help such students. The trouble is the scholarship funds of our institutions are limited and many deserving students cannot thus be aided.

One solution is, of course, to build a State University. But the Commission in investigating the cost of such an establishment has arrived at the sum of \$12,000,000. This \$12,000,000 would be required only for the buildings and equipment of an institution to house four thousand students. A considerable sum, perhaps \$1,000,000, would be needed each year for its maintenance. Common sense would seem to say, Save the \$12,000,000 and use the \$1,000,000 or a portion of it to establish a system of State scholarships. If the entire million were thus used, it would provide for nearly four thousand full scholarships at schools and colleges which already exist. Some years ago the General Court of Massachusetts amended the Constitution of the Commonwealth so that state money cannot be used now to pay tuition or fees at any private institu-This ruling permits only one unimportant exception.

The findings of the Commission, as already published, seem to leave not a leg for the State University agitators to stand upon. One attempt to prevent the costly duplication of engineering laboratories was nullified when the McKay Will was upheld by the Courts. The necessity for the duplication which then arose was widely deplored and yet it was a thing not half so deplorable as would be the duplication not only of engineering laboratories but of the entire educational facilities available in the state by the erection of one complete surplus university. Perhaps the canvass which the Commission made will set at rest this perennial hubbub. It often takes a great amount of unnecessary effort to gather the data to quiet a noisy minority which is attempting to justify its position in the eyes of its constituents.

The Technology Review



### **NEWS FROM THE** UMNI ASSOCIATIO



#### TECHNOLOGY CLUB OF CHICAGO

February, despite the bad weather, considerable sickness and much business, has been a month of more than the usual activity for the Technology Club of Chicago. On February 8 we had our second smoker of the season. It was well attended. Of the forty-eight who came, thirty-two came early and had dinner together around our regular table at the Engineers' Club. Sickness prevented Ross Sampson, '13, from telling us about the Near East, the scene of his last year's travels. Risdale Ellis, '09, however, was in town so told us more of his experiences on his recent trip around the world. At our last lunch in January, Ellis gave us a short story of his wanderings and we were keen for more. Ellis is a great collector of photographs and pipes. The pictures were thoroughly enjoyed while the pipes afforded considerable amusement, a large Turkish pipe in particular. Several of our well known engineers including Alsberg, '02, Millar, '02, and Pardee, '09, tried to stoke it but without success until '02, and Pardee, '09, tried to stoke it but without success until some bright grad removed a small obstruction from the long

some bright grad removed a small obstruction from the long inhaling tube. Another example where a little thing makes all the difference between success and failure.

Through the courtesy of the Eastman Kodak Co. and Hugh Shirey, '22, by means of a movie film—A Trip Through Filmland—the Smoker quickly turned into a flying trip through the great Eastman Plant. What impressed us more than the vast army of employees, the many buildings and the extensive equipment was the fact that, literally, trainloads of cotton and tons of silver are consumed each year at the Eastman Plant in the of silver are consumed each year at the Eastman Plant in the production of film. The purchase of a roll of film for your Kodak production of film. The purchase of a roll of film for your Kodak is not much of a transaction but the manufacturer of this small bit is indeed the result of many hundreds of operations all most carefully performed. Our Mr. Eastman is certainly entitled to the profit after such elaborate manufacture and after selling us this film at a really low price, unbelievably low after one realizes all which goes to produce this sensitized celluloid.

The subway question is a very much discussed topic here in Chicago and consequently the talk at the Smoker on the Chicago Freight Tunnels by Mr. Charles of the Chicago Warehouse and Terminal Co., the operating company, proved most interesting and popular. Mr. Charles described in detail the location and operation of these freight tunnels and arranged to take us on an inspection trip the following Saturday, February

to take us on an inspection trip the following Saturday, February

Thirty-five members availed themselves of this opportunity. Our party included the wives of E. G. Allen, '05, and G. T. Voorhees, '90, as well as the sons of R. D. Flood, '96, and G. B. Jones, '05. The trip started off with much excitement. A few additional showed up at the last minute. Our sightseeing train of three cars, all without a roof and not arranged for strap of three cars, all without a roof and not arranged for strap. hangers, had a maximum seating capacity of thirty-five. With such heavy weights as Flood, '96, and Pardee, '09, it was bad enough to seat the thirty-five, so you can imagine the difficulty we had in taking care of the forty. After much squeezing and many warnings to keep your head down and not to touch the overhead trollow wire we started on our ride which proved to be overhead trolley wire, we started on our ride which proved to be about the same as a ride through a coal mine except that it was about a thousand per cent cleaner. The electric locomotives about a thousand per cent cleaner. The electric locomotives are similiar to a coal mining engine and operate on the same power, that is, 250 volts direct current. This is no place to give a lot of figures and statistics on the operation of the Freight Tunnels. Suffice it to say that they handle a large amount of freight from the various railroad terminals to the stores, mercantile manufacturing plants and office buildings in and adjacent to the Loop District. Not only is coal brought into these places but the ashes are taken away. All of this transportation is accomplished by small cars on a narrow gauge track, which of course necessitates a transfer at the various railroad freight houses. This is not a serious handicap and as a result the Loop District of Chicago is singularly free from heavy teaming. teaming.

Our trip began at the main terminal station and ended in

the sub-basement of the great Marshall Field store. Here we had a chance to see what this freight tunnel railroad really means. Here large quantities of merchandise and coal are delivered and all the ashes are removed. The trip was a most successful

affair and we are hoping that our next program may be as popular. Several deaths have occurred; on January 12, Charles B. Gillson, '99, a patent lawyer of the firm of Gillson & Gillson, and on February 2, Welland F. Sargent, '75, former Commissioner of Public Works of Oak Park, Ill., at the time of his death being in charge of the Public Works at Wheaton, Ill., as well. Both of these men have been prominent in their own fields and their deaths are not only a blow to their families but to their commu-nities and to Technology as well. Both Mrs. Gillson and Mrs. Sargent have our sincere sympathy.

While Technology men seem to be coming to Chicago in

While Technology men seem to be coming to Chicago in increasing numbers, two of our most active members have had their employment shifted elsewhere. Both have our best wishes in their new locations. Hugh Shirey, '22, has gone to Rochester and John W. McCausland, '18, has gone to Salt Lake City, Utah. Mac is not married so there is no cause to worry.

Our next big event is our Annual Dinner which will be held Thursday, April 5, at the University Club. Dr. Stratton will be our guest of honor and a very large attendance is expected. The next issue of the Review will have a report of it, so if you cannot attend, watch for the May issue.

Out-of-town Tech men who have visited us this past month are: Kester Barr, '11, of Youngstown, Ohio, J. A. Emery,'93, of New York City and H. F. Ferguson, '12, of Springfield, Ill. We have been delighted to have them with us. If you are in Chicago on a Tuesday make a point of taking lunch with us around

Chicago on a Tuesday make a point of taking lunch with us around our table at 12.30 in the Engineers' Club, 314 Federal St. You will be most welcome.

Robert W. Weeks, '13, Secretary-Treasurer, 323 South Wells Street, Chicago, Ill.

#### THE TECHNOLOGY CLUB OF NEW YORK

It was surprising at first why nobody asked what was the matter with U. S. Steel in such a sturdy Bull Market or if there actually was a chance of New Haven going into a receivership because these are vital matters of concern to the New York Engineer and we may as well admit it. But, as a matter of fact, Mr. John Moody, of Moody's Investors Service (who talked at the Club on February 26) held his audience enthralled by his marvelous grasp of ecomonic conditions in Germany-the key to the present European situation—and of the wider aspects of what is practically a world problem. His listeners were carried of what is practically a world problem. His listeners were carried behind the scenes, past many stage sets of propaganda and saw—many of them for the first time—the inner workings of the Drama. The Players, themselves, spoke through Mr. Moody, who had but recently returned from Germany—the young Government hardly strong enough to stand on its own feet, the Common People for whom the crash had already come and the great Industrialists, shrewd and ruthless, How long will Germany continue to print paper marks and inflate its currency? Germany continue to print paper marks and inflate its currency? Why, as long as other nations are foolish enough to buy them. The biggest bank in Germany has enough gold to buy the entire existing supply of paper marks at their present value but when an American went to the same bank to get \$150.00 changed into marks he was told that the bank didn't have that many paper marks in its coffers. Even the waiters in Berlin refuse paper marks as tips. Then Mr. Moody put himself squarely paper marks as tips. Then Mr. Moody put nimsen squarely on the side of France going into the Ruhr and prophesied the consequences and told how this, the greatest creditor nation in the world to-day, would be inevitably involved in developments in Europe for generations to come. No wonder his listeners forgot to ask about U. S. Steel and New Haven. The only wonder is how any Tech man in New York on a Monday night can deliberately miss such fascinating talks. And they will continue to come on Monday nights through March into April.

The Spring Bridge Tournament is in progress. The Chess Tournament is still in progress and will apparently continue indefinitely.

Nominations for Officers and Governors of the club for the coming year will be announced in the next issue of the Review.
R. H Scannell, '17, Secretary. 17 Gramercy Park, New York, N. Y.

#### DETROIT TECHNOLOGY ASSOCIATION

On February 19, Monday, Dr. Stratton arrived in Detroit's bright and early. William Kales, Vice-President of the Alumni Association, and President of the Technology Clubs Associated. with a few others, met Dr. Stratton and ate breakfast with him at the Detroit Club.

By 9.30 a.m. a party of twelve was ready to start on a trip through the River Rouge Plant of the Ford Motor Company. Mr. Kales, by previous arrangements, was met by Mr. Mayo, chief engineer of the Ford activities, and Charles Sorenson, General Manager, and under the personal guidance of these two, a close scrutiny of the great basic-plant of the Ford Company was undertaken. It happens that D. H. N. Mayo, '14, is the son of Chief Engineer Mr. Mayo and is at the Ford Engineering Division.

The great power house, the blast furnaces, the coke ovens, the The great power house, the blast furnaces, the coke ovens, the gasoline stills, ore yards, coal yards, the typical Ford methods of handling were interestingly explained. Where Ford remodels his railroad engines; is building his new 37,500 kw. turbines; the great stamping factory; immense foundry where he pours 8,000 automobile cylinder blocks per day and 500 tractor cases per day; the great body factory that eats up 200,000,000 feet of lumber a year, were all visualized by about 2.30 p.m.

Just before noon. President Stratton and the party were

Just before noon, President Stratton and the party were taken out to the Dearborn offices, some three miles west across the 12,000 acres of Ford's holdings to the private offices of Mr.

Ford.

Mr. Ford was most polite and courteous, genial and friendly, greeting each of the party with a warm hand shake. The President and party had a pleasant chat with Mr. Ford, for about twenty-five minutes.

After continuing the trip through the plant later, lunch was served to the party at Ford's little dining room house at the Dearborn experimental plant.

Hurrying back to Detroit, the President was taken to the home of Mr. Kales, where tea was served to a gathering of local alumni and some from out of town. This affair proved so genial that the guests parted scarcely in time to get to the reception and dinner to the President, at the Detroit Athletic Club.

Granger Whitney, in his inimitable style, was toastmaster

to a fine dinner crowd of Technology men.

After hearing some of Mr. Whitney's poetic recitations and they were good—and from Mr. Wm. Kales, Mr. A. S. More, President of the local association and Professor Patterson of the University of Michigan, President Stratton was introduced.

It was a very enlightening talk by the new President, as he unfolded the background upon which he will build his future

policy at Tech.

His visit afforded the Detroit men an excellent opportunity to meet the fine new head of Technology and delighted every man present.

Following is a clipping from the Detroit Free Press of Feb-

ruary 27, 1923:
"East Lansing, Feb. 26—Professor Walter B. Barrows, head of the department of zoölogy and physiology, at the Michigan Agricultural college, died suddenly from apoplexy here, Monday

"Professor Barrows was widely known as an ornithologist. He was the author of 'Michigan Bird Life.' A graduate of the Massachusetts Institute of Technology, he came here twenty nine years ago, from Washington, where he was engaged in biological survey work. He was sixty eight years old."

Professor Barrows was an unusually fine man, a thorough

gentleman and scholar.

Philip C. Baker, '16, Secretary, 768 Penobscot Bldg., Detroit, Mich.

#### WASHINGTON SOCIETY OF THE M. I. T.

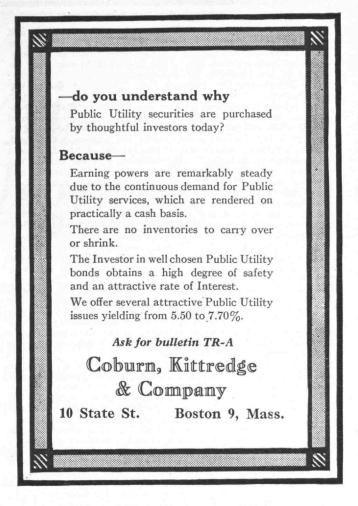
The Society has undertaken the publication of a directory of Tech men, those in the Government service being listed by department. Corse, Morris, Stose, Stratton, and Godbold form the live committee. Hanson, Grover, James, Truscott, Newell, Ricker, and McKenna form our membership committee. Freeman, McCarthy, Young, Hunnewell, and Wood find us entertainment.

Friday lunches have taken us to Siberia, Latin America

and Greece.

Our good influence has prompted Baltimore to form a society, our honored President, Mr. Tobey, being asked to go over to that open town and show them how to form a real Tech society. Several members of our society are, we understand, being considered for the cabinet.

Carroll Bennink, '98, Secretary, University Club, Washington, D. C.



TECHNOLOGY CLUB OF PHILADELPHIA

The Technology Club of Philadelphia had one of their biggest meetings on February 7, when F. J. Chesterman, '05, Chief Engineer of the Bell Telephone Company of Pennsylvania, spoke on providing telephone service for Philadelphia. The talk with pictures covered an outline of the problems involved and the methods of solution, including the new machine switching central office equipment which is now being introduced in ing central office equipment which is now being introduced in this section. We sent out invitations to mechanical engineers in Philadelphia, electrical engineers and several of the other affiliated societies. Our dinner before and the meeting afterward was about double the usual size. The Bell Telephone people had the meeting room arranged as a miniature city, with five Bell Telephone Stations around the walls and one Central Exchange up in the front of the room. After the pictures were over Mr. Chesterman with his Lieutenants, demonstrated the use of the machine switching with the above apparatus. After the lecture was over, several of our people enjoyed trying the apparatus,

and learned how the machine switching worked, etc.

Saturday night following this meeting, the Tech Boxing
Team was here in Philadelphia for a meet with the University
of Pennsylvania and A. Addicks, '21, entertained these people

at a smoker at his house after the meet.

Our next meeting will be held an March 7 at the Engineers' Club, and we expect to have George V. Daniels of F. P. Ristine & Company, Bankers and Brokers, talk to us at this meeting on investment banking as it affects engineering.

We are always glad to see Tech men in Philadelphia for our luncheons every Thursday or at our monthly meetings.

Dexter A. Tutein, '17, Secretary-Treasurer, 1607 Real Estate Trust Bldg., Philadelphia, Pa.

TECHNOLOGY ASSOCIATION OF NORTHERN CALIFORNIA Our regular monthly luncheon was held on Tuesday, February 27, at the Engineers' Club, San Francisco. Robert M.

Hursh, '06, who is now Manager of this district for the New Jersey Zinc Sales Company, gave a talk on "Zinc", a subject which he well understands, and which proved to be very interesting to those who were present.

Ray J. Barber, '06, Secretary, 350 Post St., San Francisco, Calif.

#### TECHNOLOGY CLUB OF NORTHERN OHIO

Cleveland Alumni had their first opportunity to meet and Cleveland Alumni had their first opportunity to meet and hear Dr. Stratton on February 20, 1923, when he addressed the weekly luncheon meeting of the Cleveland Chamber of Commerce at noon on that day. Fifty Cleveland Alumni were the guests of the Chamber for the occasion.

In introducing Dr. Stratton, Hon. Newton D. Baker, war time Secretary of War and President of the Chamber, paid personal bis leaves and bis leaves and bis leaves and bis leaves and sixthful across the secretary of the chamber of the Chamber, paid personal bis leaves and b

sonal tribute to him and his long and faithful services with the Bureau. He also congratulated the Institute on having obtained Dr. Stratton and added that in his opinion Technology was the

greatest technical school in the country and perhaps in the world.
Dr. Stratton's subject was—"The Bureau of Standards and its Relation to Industry." He outlined how the Bureau was originally founded to establish standards of measures and weights and how through Professor Michelson, formerly of Case School of Applied Science, the length of the standard platinum-iridium meter in Paris had been translated into terms of the wave length of light. This accomplishment was performed with a remarkable degree of accuracy and thereby established a permanent and definite basis for reproducing standards of length universally. From the standard of length, standards of weight were built up. Dr. Stratton told of the different temperature and electrical measurement standards and how they were arrived at.

During the war, the supply of block gauges, so necessary in the manufacture of munitions, was cut off from Sweden. The Bureau set out to manufacture these gauges and did so successfully, thereby assuring the most necessary production of munitions for our army. Many other problems of the Government were met and solved by the Bureau and its true worth was, if never

before, established at that time.

Another important work, in connection with the Government aided by the Bureau, was its standardization of purchase specifi-Dr. Stratton said that it had always been his idea to make the transaction of government business a model for all businesses. The Bureau has, in coöperation with government bureau heads and various manufacturers, drawn up many important specifications-and has succeeded in eliminating a large number of unworthy manufacturers and contractors of supplies.

The Bureau has also fitted up test cars to be used in correcting and standardizing elevator and track scales of the railroads. On first investigation, around 50% of these scales were found incorrect. These have practically all been readjusted and the owners of the scales have made up test cars for their own use to

continue with this work of standardization.

Dr. Stratton spoke of the work done in coöperation with representative associations of almost every industry in the country along the lines of standardization of products. Many questions of research have been answered by the Bureau after exhaustive study. Its laboratories, experts and knowledge is open at all times to industry, as it has been in the past and Dr. Stratton expressed the hope that industry throughout the country would realize the value of the Bureau and make good use of it.

While in Cleveland, Dr. Stratton made an inspection of the Nela Park Plant of the General Electric Company and was accompanied by Mr. Ambrose Swasey, veteran manufacturer and member of the firm of Warner and Swasey.

Cleveland and Northern Ohio alumni will have an opportunity to have Dr. Stratton as their guest later in the year. He has promised to come to Cleveland for the express purpose of meeting Technology men in this district—and the date will be set for this meeting within a short while set for this meeting within a short while.

Philip N. Cristal, '17 Secretary, 12th Floor, Marshall Bldg., Cleveland, Ohio.

#### TECHNOLOGY CLUB OF RHODE ISLAND

The club's latest activity was its participation in the annual Banquet of the Providence Engineering Society, with which the club has lately affiliated, in the ballroom of the Biltmore Hotel. About five hundred and fifty members of the Society, including a delegation of sixty Tech men, gathered about the festive board for an evening of absorption, both mental and A generous collection of balloons, paper hats, and noisemakers served to instill considerable spirit into the crowd so that by the time the grapefruit was finished and the goggles removed, "joy rained supreme," as Mr. Will Shakespeare would say. If ever a livelier party has been held since Mr. Volstead changed the steins into shaving mugs, Providence has not seen Whether it was the hydrogen that Ev. Freeman provided that produced the buoyant effect or gumbo in the soup, the fact remains, that from the time the first balloon hit the ceiling till the last speaker had rested from his labors, the walls of the establishment shook with sympathetic mirth. From each table a half dozen hydrogen filled balloons supported a banner with the name of the group upon it. The effect thus produced was very pleasing but the knowledge that the balloons were filled with a substance lighter than air was soon realized and before long, most of the aforementioned spheres were joggling com-

long, most of the aforementioned spheres were joggling comfortably about on the ceiling.

The Tech unit created a stir, when with a "We are happy . . ." a large Tech banner supported by about fifteen balloons sailed majestically to the ceiling, there to spend an evening of well earned rest. Throughout the banquet, gas-filled balloons supporting inflated balloons in the shape of pigs wandered about the upper part of the hall carried by every passing currant of air. As the entire evening's program was broadcasted by WEAN, The Shepard Company, the squeals and weird noises so often attributed to static, could well have been explained as the protesting cries of our rubber rowkers. ing cries of our rubber porkers.

Dr. Stratton was the principal speaker of the evening and

gave a very interesting talk on the engineering problems that beset our country during the war as well as some of those of the

present day.

The Governor and the Mayor were there to bring us the greetings from the State and the City. The other speakers were ex-Governor Hartness of Vermont and Charles F. Newcomb, executive officer of the Boston & Maine Railroad. The banquet was a distinct success, largely due to the excellent speakers and enlivening atmosphere which they maintained.

Norris G. Abbott, Jr., '20, Secretary-Treasurer, 107 Providence St., Providence, R. I.

#### NEW HAVEN COUNTY TECHNOLOGY CLUB

Those readers of the Technology Review who have followed the alumni notes closely must be conscious of the success of the Technology Club of Chicago in its alumni activities as chronicled each month by their very able Secretary, Robert Weeks, yet at the same time realize that there are some other clubs who are also striving to attain such good records. New Haven County Technology Club is one of them.

The recent New Haven luncheon meetings, although not

largely attended, have been intensely interesting and helpful educationally, as well as socially. The last luncheon was addressed by Walter Filley, formerly state forester, who illustrated and described the research work of the State of Connecticut in forest preservation and restoration. A previous luncheon was devoted to a discussion of the manufacture and industrial possibilities of cellulose by Prof. Harold Hibbert of Yale

University.

The evening meetings held about every six weeks are usually the most popular. The Winchester Repeating Arms Company very kindly extended the use of their Club House for the last meeting held February 17. After a good dinner by the Winchester chef, an interesting and instructive talk was given by Leonard M. Tarr, director of the local weather bureau on the subject of weather forecasting and its practical uses in business. Following Mr. Tarr's talk, the men organized into appropriate bowling teams as follows: Fairweathers, Barometrics, Thunderclouds, Breezers, Monsoons and Isothermals and under the generalship of Chester Dunlap fought for the supremacy of

the atmosphere.

The following committees have been elected: Luncheon Committee, C. Northrop, chairman, E. A. Teeson and V. G. Maconi—Meeting Committee, H. Polleys, chairman, John Putnam and Chester Dunlap—Nominating State Committee, E. Taft, chairman, E. A. Teeson and John Putnam. The following E. Taft, chairman, E. A. Teeson and John Putnam. ing committee has been appointed: Entertainment, Philip

Laurson, et al.

Coming Events—Tech Show at Parson Theatre, Hartford, March 19, under the auspices of the Hartford Technology Club.

Joint meeting with Hartford on April 28. An invitation
has been received from the Southern New England Telephone Company to inspect on this date their new automatic telephone exchange recently put in operation at Hartford. Details are being planned for an unusual meeting.

Roy L. Parsell, '14, Secretary, 235 Park Street, New Haven, Conn.

#### PITTSBURGH ASSOCIATION M. I. T.

A well attended Smoker was held by the Massachusetts Institute of Technology Alumni Association of Western Pennsylvania on the evening of February 24, at the Pittsburgh Athletic Association. This gathering was called for the purpose of discussing plans and proposals for the Stratton Night Dinner, which is scheduled to take place on April 6, 1923.

W. H. Horton, Jr., '10, Secretary, P. O. Box 1223, West Penn. Power Co., Pittsburgh, Pa.

# Don't Write— Telegraph!"

WESTERN UNION might have been following its own up-to-date advice, "DON'T WRITE—TELEGRAPH!," so quickly were its recent arrangements made with Stone & Webster to undertake important construction work in four states.

Philadelphia, Harrisburg, Albany, Chattanooga and Punta Rassa, Florida, are the locations of these several projects for Western Union.

Whatever you make or do, your construction problem will be simplified if you will follow Western Union's example and consult Stone & Webster.

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## C LASSES



News from even numbered classes is published in issues dated November, January, March and May. News from odd numbered classes is published in issues dated December, February, April and July. The only exceptions to this rule are those classes whose Secretaries have guaranteed the appearance of notes in every issue. These classes are: 1896, 1901, 1902, 1907, 1910, 1911, 1912, 1914, 1915, 1916, 1917, 1918, 1920, 1921 and 1922. Other classes adhere to the alternate schedule.

Due to strict limitation of space, the Review is unable to publish lists of address changes of members of the associations. When the address of any member is unknown, the Alumni Association office may be used as a clearing house. The Alumni Office in Room 3–209, M. I. T., will supply a requested address or will act as the forwarding agent for any letters addressed to members of the Association in its care.

#### 1873

ROBERT A. SHAILER, Secretary, 93 Church St., Winchester, Mass.

The Fifty-third Annual Meeting and Dinner of the Class of '73 was held at Young's Hotel, Boston, on January 26, 1923. The following members were present: Francis H. Williams, James E. Stone, Robert A. Shailer, Philip D. Borden, Frank W. Very, W. T. Leman and Charles T. Carruth.

Letters were received and read from the following absent members of the Class Association: Blaisdell, Carpenter, Cogswell, Dyer, Felton, Guild, Hayes, Johnston and Phillips.

The Secretary reported that he had just received notice of the death on January 23 of our esteemed classmate, Albert K. Mansfield.

The following class officers for the ensuing year were elected: President, Francis H. Williams; Vice-President, Edmund Hayes; Secretary-Treasurer, Robert A. Shailer; Librarian, James E. Stone; Executive Committee, Philip D. Borden, and W. T. Leman.

A tentative program for the celebration of the Fiftieth Anniversary of our Class Graduation to be held the last of next May was submitted and after general discussion, the details were left for the Class Officers to decide upon.

#### 1875

EDWARD A. W. HAMMATT, Secretary, South Orleans, Mass.

The forty-first Annual Meeting and Dinner of the class was held at Young's Hotel on March 2, 1923, at 7 p.m., with the following men present: Bowers, Dorr, Eddy, Hammatt, Hibbard, Lincoln, Nickerson, R. B. Smith and C. F. Read. Read has been Secretary of '74 for many years, and though he was connected with '75 during two years, has never before met with us. The business meeting was called to order at 8.45 p.m. and the records of the fortieth meeting were read and approved, as were the reports of the Secretary and Treasurer. The vote for officers resulted in the re-election of the old board.

Letters were read from several who could not be with us, and the meeting adjourned at 9.50 p.m.

It may be of interest to some of the members to note that of our Annual Meetings, since the reorganization of the Class in 1883, eight were held in December, nine in January, six in February, and eighteen in March with an attendance varying from a minimum of five, to a maximum of eighteen, and an average of nine.

The following classmates have died during the year: Charles E. Whitney, on April 12, 1922; Omar W. Whittemore, May 7, 1922; Edgar R. Hills, May 19, 1922; William C. Edes, May 26, 1922; Christopher A. Church, July, 1922; William P. Robinson, September 23, 1922; Henry K. Burrison, February 2, 1923, and Welland F. Sargent, February 2, 1923.

Charles Elery Whitney, son of Isaac and Dorcas Whitney, was born at Harvard, Mass., October 4, 1851; entered Tech with the Class of '75 and was with us two years. After leaving, he spent two years in the office of the late George A. Kimball, Civil Engineering; four years with the Weed Sewing Machine Co. in San Francisco, and was Cashier and Treasurer for John N. Ladensack & Co. in Boston for nearly thirty years.

Christopher A. Church, son of Christopher A, and Rebecca A. (Tucker) Church, was born at Westport, Mass., October 31, 1855. He was with the class for four years, and graduated in the Civil Engineering course. For a time, he was engaged in Sheep farming in West Virginia, and later in the Cotton business in Vicksburg and Memphis.

William Parker Robinson, son of William and Olive Garret (Parker) Robinson, born at Boston, August 13, 1854, entered Tech in '70 and left in December '72. He spent nine months in the office of F. E. L. Beal in Fitchburg, Mass., and then entered the Wholesale Clothing Business August 1, 1878. He married Mary E. Webster, and they had four children. He was a member of several Masonic bodies.

Henry Kingsbury Burrison was connected with the class during the fourth year only, and with '74 during three years. He was for many years on the Instructing Staff at Tech, was married and had three children. His wife (Harriet Childs) died in November, 1921.

Welland Fairbanks Sargent, son of Wyer G. and Martha E. Sargent,

was born at Sedgwick, Maine, February 10, 1853. He was with the class four years, graduating in the Civil Engineering course. He was engaged in miscellaneous work for two years; then for two years was Assistant Engineer on the C. & E. I. and the C. & W. I. R.R.; two years Engineer of grounds at Pullman, Ill.; Chief Engineer, Great Forks & Missouri Valley R.R. in Dakota; then put in two years in Manufacturing business in Chicago. From 1886 to 1893 he was in private engineering practice in Chicago; then three years as Chief Engineer of El. St. R.R. He next put in four years as a Manufacturer in Massachusetts. From 1906 to 1909 he was Assistant Engineer in charge of Sewer and Water system at Gary, Ind., and held the office of Commissioner of Public Works at Oak Park, Ill., for several years. Sargent married Fannie Baker, October 11, 1880, and they had two children.

I have put notices of the death of the others in previous issues of the Review.

I understand that William H. Shockley has located in New York and his address is Guaranty Trust Co., 140 Broadway, also that H. L. J. Warren's address is Union League Club, San Francisco, Cal. Frank Dabney writes that he is now Manager of the Puget Sound Power & Light Securities Co. and hopes to come East in the Spring. He says he is not so decrepit but that he can still go out on skis when there is enough snow, and still enjoys hunting and fishing as much as ever.

Goodale says "The Montana legislature is in session, and needs watching, as it proposes to lay special burdens on the mines."

William C. Marion, who has held the office of County Engineer, Yakima, Wash., for two terms has recently resigned.

#### 1877

RICHARD A. HALE, Secretary, Essex Company, Lawrence, Mass.

The Class of '77, Massachusetts Institute of Technology, on Wednesday, February 21, observed its Fiftieth Anniversary of its fentrance into Technology by its annual reunion at the Algonquin Club, with President Chas. A. Clarke presiding, and the members as his guests. The meeting was entirely informal and general reminiscences of the early days were discussed.

There were fifteen members present as follows: Chas. A. Clarke of Hill, Clarke & Company, Boston; Francis H. Bacon of the F. H. Bacon Decorative & Furniture Company, Boston; W. B. Bradford, of the Charlestown Navy Yard; Robert D. Andrews, Architect of the firm of Andrews, Jones & Rantoul; W. H. Beeching of Little, Brown & Company, Cambridge; Warren E. Fairbanks, Caryville, Mass.; Linus Faunce, Engraver, Boston; R. A. Hale, Engineer of the Essex Company, Lawrence; C. F. Lawton, City Forester, New Bedford; F. I. Sherman, Civil Engineer, Mansfield; Prof. George F. Swain, Harvard Engineering school; H. C. Southworth, West Stoughton; B. T. Williston, Boston; E. W. Davis, Puritan Press, Boston; A. L. Plimpton, Boston Elevated Railroad, Boston

The same officers were continued as follows: Chas. A. Clarke, President and R. A. Hale, Secretary and Treasurer.

It was decided to have the next annual meeting in May or June of the year 1924.

Telegrams of congratulations were sent by F. W. Wood of Baltimore and G. W. Kittredge of New York.

Dr. Stratton, the new President, had been invited to the reunion to meet the members of the Class of '77, but owing to absence from the city he was unable to attend.

The death of Lucy Baldwin, the wife of George J. Baldwin, occurred in New York, February 12, after a long illness. Baldwin has the sympathy of the class in his loss. He has resigned as Vice-President from the American International Corporation and intends to make his future home in Savannah, where he lived years before.

The reunion was especially noteworthy as being the Fiftieth Anniversary of the class entering Technology.

#### 1881

FRANK H. BRIGGS, Secretary, Hotel Puritan, Boston, Mass.

Probably the oldest living mother of any member of the class, (the mother of Ned Lewis,) died the latter part of February, at the age of ninety-two years.

### STANDARD PLATE GLASS COMPANY

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CAMBRIDGE

1881 Continued

Theodore Parker, who has been in the employ of the City of Boston for thirty-one years, was retired on March 1 by Mayor James M. Curley.

#### 1883

HARVEY S. CHASE, Secretary, 84 State St., Boston, Mass.

Wesson has sent out the following letter to all members of the class: "This is to remind you that forty years ago the Class of M. I. T., 1883, marched out from its Alma Mater and commenced to buffet with the hard cold unfeeling world. We were not much more than boys then, but we felt the dignity of our years and our M. I. T. course. We have better reason now to feel dignity and for that reason would it not be well if we could get together for two or three days, throw said dignity to the winds and be boys together again? In other words, have a Class Reunion.

"I made this proposition to Chase whose job is Class Secretary. He promptly sent in his mailing list with some remarks to the effect that being Class Secretary was not all it is cracked up to be, and told me to go to it. He said if I would achieve a round up, he would come. He did not say so, but the tone of his recent communications indicate he prefers writing poetry about St. Petersburg, Fla., to being Class Secretary.

"The points at issue on which I would like your distinguished consideration and advice are:

"First: Are you in favor of a Fortieth Anniversary reunion of the class of M. I. T. 1883 next June?

"Second: Can you and will you attend such a reunion?

"Third: Would you prefer the reunion to be held in Boston, New York, or at some quiet place in the country or on the seashore convenient to both places?

"Fourth: If it be decided to hold a reunion, will you serve on the committees, or would you prefer to have the undersigned engineer the occasion?

"Fifth: If you prefer to join Chase in wishing the job on the undersigned, will you promise not to kick if the affair is not pulled off to your satisfaction?

"Please let me hear from you with suggestions at your very early convenience so preparation can be started.

"If I don't hear from you, it is up to you to imagine some of the things I can think."

Hon. David Mason Little, mayor of Salem in 1900, died at the Salem hospital this morning, after an illness of two weeks, culminating in an operation yesterday. He was in his sixty-third year.

He was born in Swampscott, May 27, 1860, the son of the late Mr. and Mrs. James Little. He was educated in the Hopkinton School and the Massachusetts Institute of Technology as a marine architect. He was for several years connected with the Canton Paint & Oil Co.

He served the city of Salem in various offices, including alderman, and was elected mayor in 1899, serving in 1900.

During the World War he did notable service, being commissioned a lieutenant commander at the Charlestown Navy Yard, winning the highest commendation. It was said of him that he probably was instrumental in enlisting more Salem young men in the naval branch than any other single means.

During the Spanish War he also did especial service, being ordnance officer for the government in this district while he was quartermaster of the Cadets.

He married Miss Clara Bertram Kimball, daughter of Mr. and Mrs. David P. Kimball, a granddaughter of the late Capt. John Bertram of Salem. She and three daughters, Mrs. Talbot Aldrich of Canton, Mrs. Karl De Laittrof of Minneapolis, Minn., Mrs. Charles Young of Newark, N. J.; two sons, David M. Little, Jr., and Bertram Kimball Little, and several grand-children survive.

Mr. Little was an active, patriotic citizen and he was always ready to give his services to his city and to his country. He rendered distinguished service during the World War; enlisting as an ensign he rose rapidly because of his knowledge of the mechanic arts. At the close of the war he was discharged with the rank of commander. He was district construction officer

at the Charlestown Navy Yard and was in charge of the repairs on 160 boats in the patrol fleet; also material officer, which embraced all outside business matters. He was senior member of the arbitration board for the return of leased vessels to their owners and the appraisal of the amount to be paid for the restoration of such leased craft to their original condition.

He had charge of nine repair yards, from Machias, Maine, to Chatham, Mass., and served on many special boards for various purposes. The fact that he was recommended for promotion to the rank of full commander, is testimony to his service. Although retired, he still remained in the naval reserve, relieved from active duty but liable to be called for active duty.

He was four years collector of customs of Salem and Beverly, being appointed in 1911 by President Roosevelt.

George H. Cafen and Mrs. Cafen are at St. Petersburg, Fla., with the Secretary and Mrs. Chase. We expect a reunion with Harvey and Mrs. Mansfield, whose home is at Bartow, Fla., not far away.

"Construction of a building with foundation heavy enough to allow the carrying up of the frame for six or eight stories is planned for the improvement of three lots due west of the post office on First Avenue North, where temporary stores have just been built, it was announced by H. S. Chase, Treasurer of the Florimass Co., Wednesday night.

"The structure, which will be 120 feet by 100 feet, and which will be known as the Flo-Co. building, will be designed by Henry L. Taylor, architect. It will be three stories high and be bisected by a twenty-foot arcade running from First Avenue North to the southeast corner of the site.

"The architecture will conform to the style of the post office, with eight shops, facing the post office, while larger stores and shops will abut upon the inner arcade. Stores and shops will be especially fitted for the finest kinds of ladies' dress goods, men's apparel, gift shops and other exclusive businesses. A ladies' lunch and tea room with a central fountain will occupy the middle of the arcade.

"The floors above will be fitted for rooms and baths and leased separately or as a European hotel. The second floor rooms may be changed to offices in suites at a later period. Along the alley way in the rear will be warerooms and storerooms to be used by Central Avenue shops across the alley.

"The arcade will be known as the 'Chase Arcade' and with the new stores of the J. G. McCrory Co., on Central, which front on both the avenue and the alley, will provide a continuous passage for shoppers from Central Avenue to First Avenue under cover. Estimates are being prepared and the big building will be completed in 1923 or 1924." Reprinted from the St. Petersburg Times of February 4, 1923.

Edward F. Ely, Died February 8, 1923.

#### 1885

I. W. LITCHFIELD, Secretary, 10 Kenmore St., Boston, Mass.

Billy Hopkins' latest book, "'She Blows," published about a year ago, is a fascinating picture of whaling life and experiences, in the golden age of the industry. It is entirely different in style and treatment from "Those Gillispies" or his earlier and most delightful venture, "The Clammer." The author who was reared in New Bedford, has absorbed the lore of the whaling captains and has had access to the logs of many whaling ships, of which he has made good use. The result is a plain but most interesting tale of life on a whaler, of the thrilling pursuit of the monster whales with all the elements of chance and disaster, and the technique of "cutting in" and of trying out the oil, in the language of a boy on his first voyage with the blood inheritance of a deep sea sailor. A cruise of two or three years with a large and miscellaneous crew, when described as Hopkins has done it, makes the reader feel that he has really "been there." Besides being a first-rate sailor's yarn, it is a distinct contribution to the history of an industry now almost extinct.

About this time keep a keen watch out for a notice of the annual '85 dinner.

#### 1887

Edward G. Thomas, Secretary, Toledo Scale Co., Toledo, Ohio. No notes received from the Secretary.

#### 1889

WALTER H. KILHAM, Secretary, 9 Park St., Boston, Mass.

Gardner W. Pearson, former Adjutant General has been appointed aide to District Attorney Reading of Middlesex County.

Dunphe has been wintering at Tarpon Springs, Florida.

#### 1891

HENRY A. FISKE, Secretary, 275 West Exchange St., Providence, R. I.

A class dinner was held at the University Club, Boston, on February 16, with the following present: Bradlee, Forbes, Howard, Vaillant, Wilder, Thompson, F. C. Holmes, Punchard, Aiken, Bowen, Capen, Palmer, Howland, Goodwin, Ryder, Hersam, Fiske, Brown. Hersam had not been with us for many moons. He is doing some investigation work at M. I. T. Wilder told of conditions in the Chemical industry and how Germany had lost control of the world trade in chemicals and dyestuffs. Harry Young expected to be with us, but was home with a broken leg. It was his birthday, so we sent him a cake with the compliments of the class.

Arthur Alley is in San Diego, Cal., for the winter.—John F. Reynolds writes from Marblehead, where he is doing general surveying. He attended the welcome meeting to President Stratton in New York and says that is

the first meeting he has been to since leaving Tech.

Steve Bowen has just returned from a three weeks' cruise to Panama on one of the United Fruit Companies' boats.—George Vaillant is now a member of the firm of H. C. Wainwright and Company of Boston.

Bassett writes that he and Mrs. Bassett have recently returned from Havana, where they met Mr. and Mrs. Ricker. Bassett is with the American Brass Co., and has been making investigation of mining properties in Montana in connection with the Anaconda Copper Co.

Hanington writes from Denver that he has been in the mining game most of the time since leaving the Institute, but that he is now Treasurer of the Mountain Motors Company, distributors for Packard cars for Colorado and Wyoming.

- A. J. Hammond is now associated with J. O. Heyworth, Engineers on Railroad and Hydro-Electric development, at 606 South Michigan Avenue, Chicago, Ill. He has been for some time engaged in construction work for the new Chicago Union Station on the site of the old Pennsylvania terminal in Chicago.
- F. B. Choate writes from Denver that he is in charge of the Freight Department of the Union Pacific System, looking after their interests in Colorado, as he says with many "trials and tribulations."
- E. E. Winkley, writes from Lynn that he feels "rather loosely attached to the Class of '91" as he was only a special student. We propose to hold on to him even if only "loosely" and special students are just as welcome at our reunions and just as much a part of the Class of '91 as any of the others. He is in business for himself, specializing in experimental machinery and acting as consulting engineer and is connected with the United Shoe Machinery Corporation.

#### 1893

Frederic H. Fay, Secretary, 200 Devonshire St., Boston 9, Mass.

GEORGE B. GLIDDEN, Assistant Secretary, P. O. B. 1604, Boston, Mass.

Remember the dates — June 8, 9 and 10, 1923 — Thirtieth Anniversary Class Reunion — the event in the history of '93.

In "A Journey to India" (privately printed and handsomely illustrated from photographs mainly by the author), Albert Farwell Bemis records in a graphic and entertaining way his observations and impressions gained on his second trip around the world, from which he returned last summer.

The object of the trip on which Bemis was accompanied by his eldest son, Gregg, Harvard, '22, was business in connection with the Angus Company, Limited, of Calcutta. This company was organized by his late father, Judson

M. Bemis.

All of the jute now so extensively used in the bag industry originates in British India. The Angus Company with its large jute mill is the first American owned plant in India in this general field. This plant is recognized as being one of the very best in Calcutta. During the last two or three years the business of the Company has been enlarged to include a machine shop (or "engineering works" as known out there) for the manufacture of textile machinery—chiefly jute machinery. This plant at present employs about one thousand five hundred men and is admitted by all engineers who have inspected it, to be the finest engineering shop for machine works on the continent of Asia. There are about six thousand employed in the jute mill. From ten to twenty Technology men have at one time or another been connected with the business of the Angus Company and have had a large share in bringing it to its present status.

On his return home from India, Bemis visited the plant of the Midland Packing Company at Shanghai, a large, clean, modern, fine plant for the packing of eggs, millions of which come down the Chinese rivers to Shanghai and are packed and distributed to all parts of the world, particularly America and Europe in two forms, dry flaked and frozen.

Of the various plants under Chinese, Japanese, British and American management in Shanghai, there is not a single one that showed the efficiency and impressiveness of the Midland Packing Company, for the development and success of which our classmate, S. C. Keith, is more responsible than any other man.

The feature article in the January 1923 issue of the Tech Engineering News is a paper by Bemis on "India as Seen by an American Manufacturer." Herbert Nathan Dawes and Mrs. Clare Martha Langan were married in New York City on Monday, Feb. 5, 1923.

Mr. and Mrs. Dawes will be at home after April 1, at 7 Ravenscroft Road, Winchester, Mass.

Through return of George E. Merrill's questionnaire, we learn that S. Stevens Haskell died in Montreal, Canada, several years ago.

Edna Wadsworth Moody, scientist, clubwoman, suffragist and ethical teacher, after years of thought, study and research has recorded in book form her conclusions upon the greatest of all questions—the meaning of life itself. "We Are Here—Why? A Study of Life's Meaning" (Marshall, Jones Company, Boston) is a book of remarkable worth. It is a clear and direct statement, offering a sincere and convincing explanation of creation and imparting a meaning to our daily life which could have been gained only by

years of patient reading, research and clear thinking.

In the present disorganization of society, which has followed in the train of the World War and has brought much mental and spiritual disorganization to the individual as well, Mrs. Moody's book comes most opportunely to the aid of the practical man who is looking for a solution to the many vexing problems of these troublesome times. Interpreting, as she does, the Divine Plan in terms of modern science, her work appeals with peculiar force to thinking Tech men.

Conventional, established religion has lost its hold on the younger generation and yet they have failed to work out a sound philosophy to take its place. Mrs. Moody's life experience has led her to develop an optimistic philosophy, which, apart from all creeds, brings out in harmonious relation the fundamental elements of true religion. The book is a strong incentive to every human being to improve physically, intellectually, morally and spiritually.

Mrs. Arthur A. Shurtleff of Boston, wife of our classmate, and a daughter of the late Dr. Arthur H. Nichols, of the Old North Church of Boston, has inherited her father's genius for bell ringing. She is said to be the only native American woman bell-ringer who has succeeded in ringing a "peal." One must, they say, possess brains and be a mathematician of no mean order to do this. When on a trip to England, Mrs. Shurtleff astonished veteran bell-ringers there with her perfect mastery of the ropes. She was invited to become a member of the Ancient Society of College Youths, the best known bell-ringers organization in England. She passed through the ordeal of taking part in a difficult peal of 5,040 changes, which lasted three hours, without an error on her part.

#### 1895

FRANK A. BOURNE, Secretary, 70 Kilby St., Boston, Mass.

The informal '95 Executive Committee met at the City Club for luncheon on Monday, February 19, to discuss plans for a Mid-Winter or Spring dinner, probably Thursday, April 5, at 6.30 p.m. Save that date! Also preliminary arrangements were made for an outing on June 15, 16 and 17, at "our '95 club house" Saybrook. During the lunch, Louis Rourke gave reminiscences of his relations with Colonel Goethals. We also managed to get from Rourke possibilities of the Franklin Institute, of which he has recently been made a trustee by the Supreme Court.

Professor W. J. Drisko, '95, gave the monthly talk on illumination in the public course at the Institute of Technology, on Sunday, February 18. Professor Goodwin stated that Drisko was the technical cause of many of our headlight discussions. His address was more illuminating than most of the literature on the subject. We will give him credit for an interesting, well-arranged and systematically presented lecture.

Frederick A. Woods, '95, may be interested to know that the postman has reported him as dead. For a biologist, we think this report is "slightly exaggerated" and would bear investigation. The doorman at his Club says he knows better, and doesn't agree with the statement.

Ben Donham reports as follows:

"The monthly luncheon of the New York Division of the Class of '95, in charge of Donham, was held at the Tech Club, Gramercy Park, Wednesday, February 7. Those present were: Canfield, Claffin, Cutter, Donham, Drake, Gardiner, Huxley, Schmitz, Thomas and Wiggin.

"The regular club lunch was served and highly praised by all present. They certainly do furnish good food at the Technology Club of New York.

"As is always the case when members of '95 get together, everyone had a good time. If those members of the class who have not attended one of these luncheons would try it out once they would become regulars as is the case with practically all of the men listed above.

"Al Drake will be in charge of the March luncheon and intends to make a real party of it. His present intention is to hold the lunch in the Walker Street Building of the American Telegraph & Telephone Co. at two o'clock in the afternoon. It will be a real treat, as all the secrets of the Company, including those of the radio equipment, will be divulged to those members of the class who are sufficiently wide awake to reply favorably when they receive the postcard invitation to be present."

#### 1896

CHARLES E. LOCKE, Secretary, M. I. T., Cambridge, Mass.

J. Arnold Rockwell, Assistant Secretary, 24 Garden St., Cambridge, Mass.

The questionnaire for the '96 Class Book has been prepared and it is hoped to have one in the hands of every member of the Class of '96 before this issue of the Technology Review is distributed. The Book Committee realizes



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1895 Continued

that there is a lot of work involved in the preparation of this Class Book and that the success of the book will depend upon the support and prompt response from every member of the class and the Committee therefore specifically urges that every member make it his duty to fill out and return the questionnaire without delay. If the job is put off until tomorrow, it often means the day after tomorrow, and so on day after day until ultimately it is never done at all. A book, to be successful, should have every one represented.

When in New York, recently, the Secretary made a long promised call upon L. L. Lamborn who is the hustling editor of "The Chemical Age." was only a very brief call, but during that time Lamborn compressed more facts of his life history into a small space of time than one could believe possible. After graduation he went into industrial chemistry, specializing in soap manu

facture. Later on he became interested in real estate and put through some successful ventures and incidentally some unsuccessful ones. He was not only a real estate operator, but a real estate manager and acquired experience in multifarious lines even to the point of personally assuming various duties connected with hotel operation. Incidentally he found time to get married, so that as a result he is now in the grandfather class. His work on "The Chemical Age" has been one of the big factors in bringing this comparatively new publication up among the leaders of the independent chemical papers. He is particularly interested in helping the young chemists who may have difficulty in securing employment in their professional line.

Paul Litchfield made a hurried business trip East, recently, and passed one day in Boston, spending part of his time with his dental specialist.

At the request of the Secretary of '96, President Stratton has kindly given the following account of the work of Dr. Burgess in the Bureau of Standards. This represents a personal tribute far more satisfactory than the cold statement of facts that appears in "Who's Who." Dr. Stratton states that "Burgess was employed first at the Bureau of Standards in connection with high temperature measurements in which field he was most proficient, and was the co-author of several books on that subject. He then developed the department of Metallurgy, which he now heads. In this work, he has established a national reputation as a metallurgist and has published a number of articles relating to the scientific aspects of the subject. He has established an excellent relation between the Bureau and the metal industries, both ferrous and non-ferrous, and is considered one of the foremost metallurgists of the He was recently elected to membership in the National Academy of Sciences, and elected president of the American Society of Testing Materials."

J. Gurney Callan, who is following the profession of industrial engineer in connection with his job of professor at the Harvard Graduate School of Business Administration, was the co-speaker with Charles T. Main before the Boston Section of the American Society of Mechanical Engineers on March first, on the subject of "Broader Opportunities for the Engineer."

A recent note from Con Young states that he has been a prominent contributor toward a new church, which has been under construction at Chevy Chase. Young has been fortunate in having become associated more or less with Dr. Stratton and as a result Young pays a delightful personal tribute to the man for his charming personal qualities and for his administrative ability. Perhaps his ideas can be best summed up by quoting his final statement in which he says that he has never heard anybody at the Bureau of Standards speak of Dr. Stratton in other than the kindest way.

Myron E. Pierce, who has always been a keen student on the subject of International Relations, has recently contributed to the Boston Transcript a summary of the interpretation of the Covenant of the League of Nations as expressed by Sir Frederick Pollock in his book "The League of Nations.'

#### 1897

CHARLES W. BRADLEE, Secretary, 53 State St., Boston, Mass.

H. M. Deavitt of Chicago, who was in town recently on business, enjoyed some pleasant hours with a few members of the class. Bradlee and Hopkins were on deck and no doubt a good feed was a part of the program.

Members of the class may be interested to know that Walter Humphreys refused the renomination as Secretary-Treasurer of the Alumni Association, after having served in this position for sixteen and one-half years. His duties as Secretary and Treasurer of the National Association of Wool Manufacturers demand all of his time and energy, and necessitate frequent trips to New York and Washington. However, the class is still to be represented, for

Arthur Hopkins has accepted the nomination and will succeed Walter. Our Secretary has the sympathy of his classmates in the death of his

mother, Mrs. John T. Bradlee. Mrs. Bradlee died January 19, at the age of eighty-five years.

#### 1899

W. MALCOLM CORSE, Secretary, National Research Council, Washington, D. C. BENJAMIN S. HINCKLEY, Assistant Secretary, 112 Water St., Boston, Mass.

The Secretary received notice on February 1 of the death of Mr. C. B. Gillson, of Chicago, on January 14. Those of us who knew Gillson well will feel a deep loss at this announcement.

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1899 Continued

Mr. George A. Pennock has changed his position from Plant Superintendent to Technical Superintendent, Western Electric Company, Hawthorne Station, Chicago.

Mr. Alexander R. Holliday writes as follows: "Sold out my Public Utility interests December 1, 1922, and will devote my time largely to the contracting company (National Concrete Company) with which I have been connected since 1907. Had a pleasant visit with Sylvester Cannon last month in Salt Lake City. He has been City Engineer for ten years.

"Reunion at Placid, I hope. Will be there rest of month for winter sport."

The following note from Miles Sherrill is interesting: "I have completed the manuscript for 'A course of Laboratory Experiments on Physics—Chemical Principles,' for the Macmillan Company. This book is a companion piece to 'An Advanced Course of Instruction in Chemical Principles,' on which Dr. Noyes and I have worked so long and which we published last spring."

A note from Harry Morse indicates that he would be glad to get suggestions from any member of the class regarding a good opening.

Walter W. Bonns called on the Secretary's office on January 18 on his way back from a trip to Norfolk, Va., where he was investigating a new business connection.

George H. Priest writes as follows: "No news may be good news, but it can't be very interesting. I admit it is hard for most of us to imagine that the other fellows can get much entertainment out of our own daily happenings and I presume this is why you find it so hard to get class news. My own life seems rather mechanical and uninteresting. Serving the public as manager of a public utility is a mighty complicated job, made up largely of minor details that don't make headlines. I am glad to report that the old gas company is now coming back strong after a bitter war experience. We have resumed dividends on a 6% basis and purchased a \$100,000 block on Main Street for our general office. Incidentally, the stock which I purchased at 125 volplaned shortly afterward to 55, but is now coming back for a new altitude record."

F. C. Waddell writes: "Sorry I had to miss the dinner on December 16th. Fully expected, when I saw you on the evening of the 15th, to be among those present on the 16th, but unfortunately lost out. Ever since I have been engaged in a campaign to get my \$5 back, but so far have drawn a blank. Looks as if it would have been cheaper to have attended, but I believe in sticking to a thing, so if I survive for ten years I may get my money back.

"Received a short note from Herbert Starr a few days ago. He is spending most of his time at present on a bridge across the Piscataqua River in Maine. There are three long river spans, the center one being a Waddell vertical lift, but I deny all responsibility for it.

"Personally, I am still building skyscrapers in New York City — skyscrapers naturally appeal to me. But if skyscrapers fail us, we build anything else with steal in it. (Note: this is the very latest New York way of spelling the word that is spelled with two e's elsewhere.)

"I have just had the pleasure of my son's company at a 'Father and Son' banquet this evening—it being his first affair of this sort. He looked very serious while dad was making his little speech, but we both survived it."

Philip Burgess writes from Columbus, Ohio, that he will always look back with pleasure to the Twentieth Reunion at Lake Placid and will vote for the same place for the Twenty-fifth. Naturally, the men in the Central West would like to see the Reunion away from New England; but everything considered, New England seems to be the best place. Phil is planning to be present at the Twenty-fifth if it is a possible thing.

Gardner Barry writes that the idea of the Twenty-fifth Reunion sounds good to him.

Thomas P. Robinson writes as follows: "What kind of news do you want, — newspaper news, magazine news, or book news; that is, do you want reporting, journalism, or literature? We do any kind of architecture here for any kind of person, or almost any kind of person, so why shouldn't we give any kind of news to a person like you?

"Having discovered after fifteen years that we have grown too big for our shell at 20 Beacon Street, we have moved to 3 Joy Street, Boston. You did not come often enough to 20 Beacon Street to know what that place lobks like, and of course you do not know anything about the new place. You will have to admit, however, that Joy Street has a better sound than Beacon Street. You can take this as significant for the whole locality. It is better in every way.

"Do you think any of the class will be interested in this fact? I hope so, but I haven't any reason from my past experience to assume that it is so. I have never had a single classmate transform himself into a client. Now can you tell me why this is? Is it because the fellows knew me so well, that they keep away from me, or because they did not know me well enough to hunt me up? Anyhow, I assure you I feel very well disposed toward all of them, and so long as we have business to keep us going, it really does not matter whether it is my own or some other fellow's classmates who bring it to us. Greetings to them."

Clarence Renshaw writes as follows: "I visited Boston November 15 and 16 and saw the dome of the Institute in the distance, but did not have time to go there."

From George P. Dike comes the following: "In the November issue of the Harvard Law Review, there was printed an article entitled 'The Trial of Patent Accountings in Open Court — a Proposed Reform in Procedure,' by George P. Dike, '99, M. I. T. It is a highly technical article and not interesting to members of the class except to Packard, Samuels, and Albert Nathan."

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#### 1901

ALLAN WINTER ROWE, Secretary, 295 Commonwealth Ave., Boston, Mass.

Since last we went to press there has been a considerable dearth of news from members of the class. Frantic telephone appeals to some of the members resident in Boston have failed to elicit any response. Your Secretary is obliged, therefore, to fall back upon the stray items of information which have reached him from outside sources.

It has been your Secretary's intent to gladden you this month with a full and confidential personal interview with the most distinguished member of our class. This point in itself, I trust, will be enough to evoke some warm discussion. Unfortunately, however, your Secretary's frontal sinus and all his little sinuses are in a state of active irritation, and being a sympathetic soul, the residual portion of his organism is functioning in harmony. these conditions he was refused admission to the office of the aforesaid most distinguished member of the class who stated pithily and briefly that his life was too valuable a one to the community to hazard its possible extinction by contact with so patent a focus of infection as is the present scribe. With these few introductory remarks, the Secretary inaugurates a guessing contest for the privilege of partaking in which the modest sum of ten cents is requested as to the identity of the aforesaid most distinguished member. Any replies received will be given due publicity in a subsequent communication of the writer who herewith disclaims all responsibility for opinions expressed in harmony with the current editorial practice.

The Secretary apologizes for the poverty of his offering but trusts that his readers will know where to lay the proper responsibility.

#### 1902

Frederick H. Hunter, Secretary, Box 11, West Roxbury, Mass.

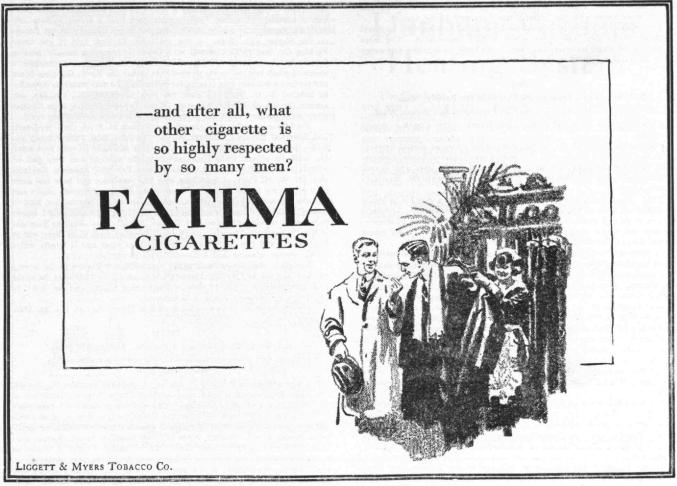
Burton G. Philbrick, Assistant Secretary, 585 Boylston St., Boston, Mass. George Mather has been heard from after a lapse of many years. He went to San Juan, Porto Rico, some nine years ago and after he left there, contact with him was lost. He writes as follows: "You may be interested in knowing that after we had been in Porto Rico for about two years, the climate began to tell on our health and we moved to a farm in the mountains of Vermont, where we lived as farmers for over a year and then returned to New York, where we have lived ever since, our home now being in Morsemere, N. J., just across the Hudson River from Grant's Tomb. You will also be interested, perhaps, in knowing that our older son, Judson, is at the University of Cincinnati, taking a mechanical engineering course and that it is his fond hope to finish up his training at the Institute of Technology. Our other son

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is in the eighth grade and expects to enter high school next year and eventually become a farmer."

Mather's second son, who was not reported in the Class Directory, is Deane Winslow Mather, born March 12, 1910. Mather reports that his mail address is at his home, Morsemere, N. J.

Harlen M. Chapman is Assistant to the President of the Indiana Coke and Gas Company of Terre Haute, Ind. He is the first classmate to report a vital change of address since the Directory was issued.

We quote the following from a letter from Miss Sarah L. Bates, who, as noted in the Class Directory, is a Teacher of Home Economics at Spelman Seminary, Atlanta, Ga.: "The Secretary of the Technology Club here telephoned me the other day and encouraged me to attend the Annual Dinner, if you or Mr. Humphreys, (it was Walter) had not sent him my name I would have hesitated about making myself known—as it was, they gave me a most cordial reception and we had an agreeable social time at an attractive Inn near by. I greatly enjoyed meeting the ladies.

"This is a large teacher-training school — we have over four hundred boarders, most of them from the country side of Georgia. The General Education Board supports it largely and we have some fine buildings. Mine, the Home Economics Building, is the best equipped I have ever seen. I have six on my faculty, all from New England but one, and we work very harmoniously and have a most interesting series of courses — Grammar, High School and Normal professional."

"P. S. No snow or coal shortage here."

Francis J. Mague is living at 6 Rowe Street, Auburndale, Mass. We learn that he has two daughters, Helen and Marie. His regular line of landscape contracting having been rather quiet of late, he has been building high-grade family residences in Auburndale and other parts of Newton.

F. Dean Avery (Jimmie) is becoming involved in local politics. We quote the following from the Greenfield, Mass., notes in a recent issue of the Springfield Republican:

"F. Dean Avery is receiving very favorable mention (for Selectman). He is a young man of force and energy, well equipped to deal with town problems. Since coming to Greenfield to live, he has been much interested in all of its civic activities. He is a graduate of Massachusetts Institute of Technology and for some time has conducted an engineering business, at one time being partner of Emil Schenck, town engineer."

The Class Secretary has been selected by Dean Talbot as a member of the Alumni Court of Appeal on the enforcement of the Fraternity Rushing Rules at the Institute. So far, the duties of the position have been entirely ornamental, but like the darkie when asked to change the twenty-dollar bill, "We sure does thank you for the compliment."

#### 1903

CHESTER S. ALDRICH, Secretary, 10 Beaufort Rd., Jamaica Plain, Mass.

We were glad to get a letter from W. P. Regestein who is with E. I. duPont DeNemours & Co., address Drawer No. 1, Pennsgrove, N. J. He is the head chemist and Ballistic Engineer of the Carneys Point Plant and says that having been married twelve years, he is thoroughly domesticated. He has three daughters aged ten, eight, and three and lives in a small town more or less isolated in the winter by the freezing over of the Delaware River. One of his neighbors is G. B. Bradshaw, alias Brad, which ought to be enough to condemn the town; and now that we have handed this to Brad, perhaps he will come back breaking his sphynx-like silence with a broadside which will incidentally furnish some news. Go to it, Brad!

C. T. Bilyea reports he has been with the Barrett Company for sixteen years at their New York office and principal branches throughout the United States. He is now with the Empire Contracting Organization, Inc., 132 West 42nd Street, New York City, Contractors and Builders of large structures. His entire time since leaving the Institute has been devoted to the building interests.

Jim Doran, Doran Bros., Danbury, Conn., is building patented hat machinery and is a director in half a dozen corporations and banks as well as being head booster of the Danbury Boosters Club, which we expect has experienced some strenuous boosting. Best of all, he reports an angelic wife, four boys and a girl who call him Dad; and he says, with characteristic optimism, he is still young. He will be more than glad to entertain class members if they are in his vicinity.

Frank A. Hill is still with the General Electric Company River Works, Lynn, Mass., where he has been for the past twenty years. He doesn't seem to be very much excited about it, but it appears that a man must have some adhesive qualities, at least, to stick to one concern that length of time, as well as other Christian attributes he is no doubt too modest to mention.

Among Technology men who were prominent in the recent suit of the Pierce Smith Converter Company, versus the United Verde Copper Company, involving the patents for treatment of copper matte in the basic lined converter, was F. D. Kehew, '03.

Ichabod F. Atwood of Chelsea, Mass., has just started on a two months' trip through the South and Middle West.

We regret very much to report the serious illness of Arthur S. Martin,

243 Harvard Avenue, Allston, Mass., at this time, (February 26). He has been for some years with the United Fruit Company in the tropics.

A number of our men have been good enough to express their approval of our efforts to give class news, which is duly appreciated. The large majority of the class, however, have sent in no reply to inquiries and every man is urgently requested to do his bit.

#### 1905

ROSWELL DAVIS, Secretary, 19 Thorndike St., Beverly, Mass.

S. T. STRICKLAND, Assistant Secretary, 26 Pemberton Sq., Boston, Mass.

Class Luncheon — Second Friday Each Month — One o'clock — Boston City Club.

The annual dinner of the Alumni Association attracted several fivers to the Walker Memorial on January 13. Buff, Crowell, Fisher, Green, Helpern, Lewis, McLean, Prichard and Strickland were the only ones who braved the bitter cold that evening, but they felt well repaid with Dr. Stratton's splendid speech.

Theo. Moorehead, who was located in Chicago for a number of years, has opened an office as managing partner of H. L. Stevens & Co., Architects and Engineers, 433 California St., San Francisco. He has three children—two boys and a girl, aged nine, seven and five respectively. Of his recent visit to China. he writes:

"I returned to China in 1918 after an absence of seventeen years. I noticed a very marked change in the Chinese people. In the first place, their appearance was quite different, as they had, practically all of them, cut off their queues. A number of the merchants had adopted the foreign (non-oriental) dress. The Chinese are far more progressive than they used to be and are rapidly acquiring occidental methods. Of course, my observation was principally of the Chinese in the cities. In the country districts, the progress has not been so great and will not be until transportation conditions are changed. There has been quite a marked railroad development in China, but practically nothing in the nature of highways. I believe, however, it will not be long before the highway system is developed there and also further railroad developments. From an engineering point of view, China offers large possibilities for those who care to live there." You will note that he didn't.

Louis Killion got way out to Beverly one day and surprised us with a personal call. He has left Monks and Johnson, with whom he has been connected for a number of years in the Boston, New York and Philadelphia offices and is now the New England representative of The E. F. Hauserman Co. of Cleveland, manufacturers of standardized steel partitions, shelving and skylights.

Arthur Lawrence has resigned as Manager of the Rubber Foot Wear Division of the U. S. Rubber Co., New York, to become Secretary and Treasurer of The Vollman, Lawrence Co., makers of women's shoes, Cincinnati, Ohio.

Gilbert Tower has recently joined the staff of the N. Y. Reciprocal Underwriters, 212 Fifth Avenue, New York City, as field engineer. This is a mutual insurance company handling especially high-grade risks, mostly city store buildings. Tower will be selling insurance in New York State and New England. He is now living at the Technology Club of New York and recently attended a meeting of the A.S.M.E., of which George Rhodes was the presiding officer.

E. Logan Hill is with Heyl and Patterson, Inc., 90 West Street, New York. We have been unable to learn what the business is, but have discovered that he has a steam yacht, just overhauled under the direction of an '05 naval architect, T. M. Gunn. While we do not know why Hill had the yacht overhauled this time of year, we find that he has another address on Long Island and everybody knows what fast yachts are doing these days on the Jersey and Long Island coast. Gunn, it will be recalled, was chief designer for the Submarine Boat Co. Whether, from his experience, he has been able to develop a new and safer means remains to be seen.

We had not expected to run a serial on W. K. Lewis but the introduction of the honor system in Chemical Engineering, of which he is head, is of too great importance to neglect. Following the lead of the Architects, the seniors of Course X have drawn up a constitution which is now in effect. Your Secretary has seen the honor system in operation in another institution and is sure it will be a great thing for the Institute, providing the students are wholeheartedly behind it. We shall take pride in the fact that one of our class was the first to start it on the Cambridge side.

Your Secretary had been planning a trip of inspection to the outlying districts for some time and in January found it possible to start in at Chicago. George Jones was discovered in his office in the Marquette Building trying, as usual, to start some patent litigation. He still has faith in his plan to move the national capitol to the shores of Lake Michigan, but is not sure whether it would put too much pep into the capitol or tone down too much the kick of Chicago. We are ready to grant that a little of each, please, might be desirable. Jones was recently best-man for E. W. Bonta, '07, modeller of the Roosevelt head, which we had in the '05 section of the notorious torchlight parade of the fall of 1904. Can anyone forget the quiet dignity with which it shot up from the draped tip-cart and bowed to the crowd?

Together we called upon Joe Brown in his manogany lined office overlooking the lake. He is District Sales Manager for the Sullivan Machinery Co., covering Michigan, Illinois, Indiana, Iowa and Minnesota.

Bidding Jones good-bye on the busiest corner of "Shy," along breezed Frank Payne, looking as though he owned The Loop. We helped him find the British Consul who relieved him of several pounds something for the privilege of landing in England. But recently back from a several months' trip to South America, he needed another rest and sailed, January 30, for Europe on the biggest ship afloat. A few years ago he took hold of the Crane Packing Co. (not to be confused with Crane Co.), making metallic packing for marine condensers. This packing completely prevents electrolysis, a source of much trouble, and is so good that he has the Navy, Shipping Board and the trans-Atlantic lines begging for deliveries. To overcome this difficulty, he induced A. H. Smith to leave the Hills McCanna Co., Chicago, and assume the job of Factory Manager. When Payne gets back from Europe, there won't be very much left to do, unless it is a trip around the world.

Fred Simonds writes from the office of William M. Piatt, Civil, Hydraulic and Electrical Engineer, Durham, N. C.: "In July, 1919, I came South and took a position in Elizabeth City, N. C., as City Manager. I only held down this work for a year, when I got peeved at the political stuff they pull off nowadays and left that position to become Principal Assistant Engineer with Mr. W. M. Piatt. I have been with him ever since and have had some good experience in the design and construction of water filtration plants and systems and sewage disposal plants, including one of the new-fangled kind — namely, activated sludge sewage disposal. About March 1 this year I expect to become a member of the staff of Nicholas S. Hill, Jr., Consulting Engineer of New York City. The work which I will be called upon to do there, will be in a general way like the work of my last three years and is largely water works, sewage systems and hydraulic development."

Evidently, the political stuff hasn't worried James Barlow, for he is very much on the job as City Manager of New London. In December, he spoke at a joint meeting of the Providence Engineering Society and the A.S.C.E. on "The City Manager Form of Government."

Fred Goldthwait announces the arrival of Nancy Ray on Jan. 25, 1923.

#### 1907

BRYANT NICHOLS, Secretary, 2 Rowe St., Auburndale, Mass.

HAROLD S. WONSON, Assistant Secretary, W. H. McElwain Co.,

Manchester, N. H.

A new address for Franklin O. Adams, Jr., is 510½ Franklin St., Tampa, Fla.—The engagement is announced of Miss Laura Stinson Henderson of St. Louis, Mo., to Paul L. Cumings. The wedding probably will take place in June. Cumings is now living at the Hotel Puritan, Boston, Mass., with his mother and is associated in business with Stanley Wires (also of 1907), being President of E. Stanley Wires Co., 120 Boylston Street, Boston, contractors for roofing and interior tile.—John H. (Stud) Leavell is located at Carmel-by-the-Sea, Cal.—Byron P. Luce, who is a recognized authority on sugar refining machinery, is now associated with the Farrell Foundry and Machinery Co., Royal Bank of Canada Building, Havana, Cuba.—Floyd A. Naramore is now a partner in the firm Naramore & Menke, 631 Central Building, Seattle, Wash.—The following clipping from the San Antonio, Texas, Express of December 10, 1922 is of interest:

"Construction of the 'model home' was accomplished under the capable direction of Willis Ranney, a San Antonian who holds an enviable position among engineers and builders of the United States and Europe. A graduate of the Massachusetts Institute of Technology, the foremost engineering school in the world, and having to his credit more than \$25,000,000 worth of construction work, including power, irrigation and industrial projects, Mr. Ranney is an acknowledged leader in the building field.

"Perhaps the greatest monument to his ability is the 100,000 horsepower 'Camarasa' hydro-electric project in Spain, which includes the highest masonry dam in the world. A practical working idea that is easier for local people to visualize lies in the statement that it is more than twice the height of the Medina dam.

"Before going abroad, Mr. Ranney helped to direct construction of the Medina dam, and was resident engineer of this big irrigation project. Returning to San Antonio from Spain, he decided to make this his permanent home, entering into the building of 'super-built' homes for the home-owners who want the best in home construction.

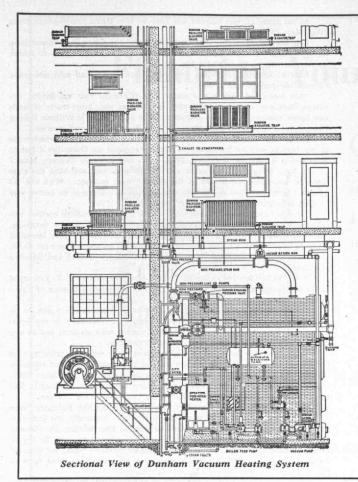
"Recognizing the value and the possibilities of Woodlawn Place, Mr. Ranney associated himself with the promoters of this beautiful addition early in the year, and an extensive building campaign has been conducted. This campaign of building has been a vital factor in the beauty that has developed in this addition. The numerous homes already completed and occupied and those under construction are proof of this argument; and the character of building in the 'model home' has familiarized thousands of San Antonians with the methods that Mr. Ranney characterizes as superbuilding.

"The same care, knowledge and judgment required in the direction of operations representing the expenditure of many millions, Mr. Ranney devotes to the construction of these attractive residences. Insisting upon the best of materials from foundation to roof, this builder has earned for his structures the name he has given to them."

#### 1909

CHARLES R. MAIN, Secretary, 200 Devonshire St., Boston, Mass. George A. Haynes, Assistant Secretary, 186 Lincoln St., Boston, Mass.

Now that spring is at hand, it is time to be thinking of the annual Class Outing. The Secretary assumes that the class will desire to go off somewhere for a day or two, and he would be glad to have any suggestions from the class,



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#### Pulling vs. Pushing.

The fundamental principle of the Dunham Vacuum Steam Heating System is that the circulation is produced by the action of the vacuum in the return piping, sucking the air out of the radiators causing the steam to rush in and fill its place.

The vacuum pump may be either steam or motor driven. When motor driven pump is used, it may also act as a boiler feed pump.



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#### 1909 Continued

as to either time or place. We are one of the few classes which continues the practice of yearly outings, and all of us, I am sure, feel that we get too much out of them, not to continue as has been the custom for the past seven

The New York bunch is holding monthly luncheons as does the Boston crowd, and expects to do so until the summer. P. M. Wiswall, 17 Gramercy Park, telephone Rector 7345, would be glad to hear from any of the class who are in New York permanently or temporarily. Just give him a ring and get the date of the next meeting. In January, ten of the fellows got together, including Jim Critchett, Chet Pope, Harry Whitaker, R. L. Jones, Let King, Barnett, Johnson, Ballard, Weill, and Paul Wiswall. Information as to the Boston lunches can be obtained at the office of the Secretary, telephone Congress 2760.

The Knowles Scale Works, in Lowell, has recently been purchased by Marc Cole, who takes over the management of the business. The Knowles Scale Works is an old organization established in 1837 and has an excellent reputation, doing business in all parts of the world. All kinds of scales are manufactured by it, including platform and counter scales, spring scales, and all types of weighing machines. The best wishes of the class go with Marc in his new undertaking. Previously, Cole was plant engineer of the Saco-Lowell Shops.

Miss Mabel K. Babcock announces that she has severed her previous connection with the Breck-Robinson Nursery Company and has opened an office of her own at 138 Bowdoin Street, Boston, where she is prepared to undertake the planning and execution of Landscape Work of all descriptions.

Merton Belcher is Assistant Manager of the Bank of Italy, at their branch office Hanford, Cal.

Among the Technology men prominent in the recent suit of the Pierce-Smith Converter Company, versus the United Verde Copper Company, was P. H. Mayer, who is engaged in Metallurgical engineering at 120 Broadway, New York City.

Harry Whitaker, who has been connected for a number of years with Ford, Bacon & Davis, is now located in Washington as their representative, having charge of the disposal of wooden ships owned by the government. We understand that Harry expects to be in Washington for two or three years.

The Class of 1909 is holding monthly luncheons in New York City, usually on the third Saturday of the month. The next luncheon will be held on April 21, probably at the Technology Club, 17 Gramercy Park. P. M. Wiswall is in charge of arrangements, and can be reached by telephone, Rector 7345.

#### 1911

ORVILLE B. DENISON, Secretary, 63 Sidney St., Cambridge 39, Mass. John A. Herlihy, Assistant Secretary, 588 Riverside Ave., Malden, Mass.

It certainly is surprising how many Eleveners there are who think this "Write to Dennie" is the translation of one of the hieroglyphics taken from the tomb of King Tutankhamen. "Tain't sol No-sirree, Bob, it's a real, honest-to-goodness request for news of our classmates. You see, the aforesaid Dennie became a charter member of the "Eight Issue Club" when the present board of editors started in and accordingly as each month rolls around, out comes the old typewriter (Corona, neutergender) and way we go.

What few news nuggets we have this month are good ones, but consarn it, we want MORE of 'em!

With great joy and pride we learned on Saint Valentines that:

"Raymond & Whitcomb Company take pleasure in announcing that Mr. Emmons J. Whitcomb has been elected a Vice-President of the Company with offices at Beacon and Park Street, Boston."

A reorganization has taken place at Northeastern College, Boston, and our classmate Carl S. Ell, formerly Dean of the engineering schools, has now been made director of the School of Engineering, the Evening Polytechnic School and the Automotive School of Engineering. This is a well-deserved advancement.

Good old Jim Campbell, I, writes in from Manhattan Isle:

"We (Eadie, Friend and Campbell) are keeping pretty busy in the office, principally on power plant and factory work, together with some hotels, loft buildings and apartment houses. In the last few years we have developed an odd side line also: that is the design of restaurants for the Exchange Buffet Corporation. We opened up their thirty-sixth place on January second at Eleven Broadway. During the ten weeks that the job lasted, we managed to spend about \$200,000. They handle large crowds during the lunch hour and the ventilation is a serious problem. On this last job the fans handle 100,000 cubic feet per minute and all the exhaust is discharged at the roof, twenty-three stories above the restaurant. Most of the fixtures are specially designed and are made of monel metal. A great deal of study has to be given to securing strictly sanitary construction throughout."

"Tomorrow" is a very popular song, but when you come to "Write to Dennie," make it "TODAY."

#### 1912

F. J. SHEPARD, JR., Secretary, 568 E. First St., Boston, Mass.

The Secretary has been hoping that the approach of Spring would move some of the Brethren to send in a little news. Anybody who feels so inclined

should certainly obey that impulse and get his thoughts down on paper at once. We don't promise to publish everything that comes in, but assure you that we overlook nothing.

Dave McGrath sends in the following account of the New York Luncheons. Anyone reading the account would surely wish to be with them.

"It begins to look as though we have really succeeded in establishing the monthly luncheon habit among the Class of 1912 men in and around New York. We started in with the special affair held in December when Dr. Stratton was entertained here by the Alumni. The next one was on January 12, when nine of us gathered at the Technology Club for a congenial hour at noon. On Wednesday, February 14, we held our third one, and had ten members present. It may be of interest to know who they were and what they are doing. Perhaps some of you who read this, and haven't attended yet, may feel it's worth your while to come next time and meet some of these fellows.

"Here they are: E. M. Mason, VI, Marketing Assistant in Export Department, Standard Oil Co.; N. A. Hall, VI, Sprague Electric Co., New York; Paul R. Williamson, I, Designing Engineer, American Ice Company, New York; R. J. Wiseman, VI, Research Engineer, Okonite Company, Passaic, N. J.; J. A. Cook, VI, Assistant Superintendent Test Department, New York Edison Company; H. D. Mitchell, X, Chief Chemist, C. Kenyon Company, Brooklyn; H. W. Codding, VI, Distribution Engineer Public Service Co., Newark, N. J.; W. H. Lang, I, Board of Education, New Rochelle, N. Y.; L. W. Cooper, VI, Electrical Engineer, A. T. & T. Co., New York; D. J. McGrath, I, Advertising Department, McGraw-Hill Company, New York.

"Letters or phone calls were received from Ferry, Yereance, Payson, Brackett and Galagher, regretting inability to be present, but promising to try and make it next time.

"Preference has been expressed for Wednesday rather than Thursday, for holding these meetings, but they are subject to change. In general, however, they will occur the second Wednesday of the month, at the Technology Club, 17 Gramercy Park, price of lunch, seventy-five cents, no tips, and no overhead expense or other charges. Certain philanthropic members are financing the huge expense of sending out twenty-five or thirty post-card notices each time, to men we know are in the vicinity. If you don't get a notice, and feel slighted, let us know and we will soothe your ruffled feelings with a notice of the next affair. We're going to run these monthly meetings as long as we can succeed in getting a turn-out of two or more members. So cheat the time-clock one day a month and take an extra half hour for lunch with 1912.

"The writer received a phone call from Jesse Hakes, I, recently. Hakes was in town on a visit and reports he is still living in Baltimore, and has started in business for himself. He promises to write a letter to the Class Secretary and tell the whole story as soon as he gets things going right."

#### 1913

F. D. MURDOCK, Secretary, 230 Chandler St., Buffalo, N. Y.

R. CHARLES THOMPSON, Assistant Secretary, 120 Milk St., Boston, Mass.

It certainly is encouraging to get a letter from Paul Warner asking for the inclusive dates next June, during which our tenth reunion will be held. Paul has several important engagements coming in June, and his attitude is that they must be arranged so that they will not interfere with his attending the reunion from start to finish. We have had sentiments of this sort expressed by several men in the class.

The faithful group of fifteen to twenty men in Boston have not missed one in their series of monthly dinners and get-togethers. At each meeting they discuss plans for the reunion.

The most probable dates are June 15, 16 and 17, the last being a holiday for Boston and vicinity. It will be held somewhere on Cape Cod.

One of the most perplexing questions to be decided just now is whether it is to be a stag affair or the reverse, or a combination; one day being set aside for the ladies. Inasmuch as the Secretary's wife is not in the habit of reading these notes, he ventures to voice his opinion that it should be strictly a stag affair. It would be too bad to put such convivial spirits as Mons Gagnon, Hap Peck and others, under the natural restraint which the presence of ladies would impose. It will be possible for those men who wish to entertain their wives at that time to arrange for something to be going on in Boston. There is one point to be particularly considered. Of all reunions it is a matter of experience that the tenth-year one is the largest and most successful. It is so for many obvious reasons. Those of you who like to "hit the high spots" will certainly do well to make your plans to be with us.

Charlie Thompson writes that there were twelve '13 men at the annual Alumni dinner, at which Dr. Stratton made his bow.

On January 18 the class monthly get-together was held at Walker. It consisted of a dinner in the Grill and bowling afterwards.

From the Brookline Chronicle, we have the following clipping: "Announcement was made this week of the marriage of Miss Rose La Terza, daughter of Mr. and Mrs. Frank La Terza of Wisconsin Avenue, Somerville, to George Marshall Denkinger, son of Dr. and Mrs. J. A. Denkinger of Addington Road. The wedding took place last July, but the couple managed to keep it a secret and the announcement this week came as a surprise to their many friends. Mrs. Denkinger is a graduate of Somerville High School and Burdett College, and before her marriage was a secretary at Technology. Mr. Denkinger is a Technology man and during the war was in charge of the engineering division of the Air Service, U. S. A., and instructor in the aeronautical course at the Institute."

E. St. John, II, was married last June to Miss Helen Frothingham Blake (Wellesley, 1918).

Ben Munch, II, states that he finally found the Class Dope Sheet from its hiding place under a bunch of tailor bills and he makes haste to assure us that he will be on hand for the reunion.

Paul E. Rudolph, I, notes: "Am home sick with a bad cold and going through old papers, and so this:

"Am connected with a real estate firm (Chicago) that subdivides, develops, improves, such as sewer, water, gas, paving, etc., large tracts of lands and builds homes of moderate character. The firm's name is William Zelosty Company. I have been with them since 1913, except for war interval."

John G. Lanning writes: "I have an item for the class news in which some of my friends may be interested. I became engaged on December 4 last to Miss Helen R. Woods, Wellesley, 1922, TZE, and living in Everett, Mass."

"I hope things are moving in good shape with you, and that the class stages a first-class get-together at the reunion next summer. With the '13 fellows I have met that is the first question asked. There is no better way to start an argument than to answer 'no.'"

Lammie Lemaire, III, pauses from his occupation of kidding cockies into taking tractors long enough to jot down the following: "Have new company, Traction Australia Pty. Ltd., handling Electra Tractor Sales. Have increased mightily in last three months, so much so, that I am enclosing check for \$5.00, five years' dues to the class. Cheereo to all members of 1913 and Season's greetings."

O. C. Walton has been appointed as an executive aide to F. T. Letchfield in the industrial engineering branch of the San Francisco Chamber of Commerce.

The Secretary is going to let "you all," as they say in the South, in on Ken Blake's pussy-footed call-down, in which the Secretary is the goat: "I've just had a terrible shock, and must discuss it with someone and as you already know about it, you're the logical candidate.

"You know the sensation of sticking your chest out with pride so that the thread on every vest button has reached the elastic limit, and suddenly finding that the spot light is directed at your right-hand neighbor. Well, that's me. (Arlo Bates once over in his grave figuratively speaking.) But to relieve your suspense, please settle down comfortably for reel one.

"Scene — The Author seated in easy-chair reading the February issue of The Technology Review (N.B. my \$3.00 is paid). Naturally, the first item of importance is the 1913 news. On the way to that section we discover writeup on Ed. Germain, '13 — first button tight — Next, we note the length of space devoted to 1913, — expansion increases 100% — Next, we discover ourselves in print — PV-Cs — With great glee, we remark on these facts to the only girl in the world — Happiness complete.

"But on the way back to the front of the magazine we catch some fine print under the heading 'News of the Classes.' Now fine print always had a fascination for me because sometimes it explained what 'entropy' was supposed to be—so we ran through it and came to the phrase 'Classes whose secretaries have guaranteed notes in each issue. These classes are'—No use to read further, 1913 will be there in big type. But feeling so happy, we think we'll taste this last complete triumph '1910, 1911, 1912, 1915'—Business of rubbing eyes—and then we read backwards '1917, 1916, 1915, 1912.'

"You poor boy, we feel the way you must have felt for 'nigh onto ten years."

"This isn't criticism; it's sympathy, and a personal resolution to help put 1913 back into the honor roll. It was about a year ago that you put the whip to us, and now we see that even that didn't help much.

"But to settle this matter, would it be possible to lay the bunch into as many groups as there are issues of the Review and ask them to send in an item for that issue? Heavens man, it isn't up to the Secretary to guarantee notes, they shouldn't be one-name papers but 250-name papers or better. So you count on me as many times a year as necessary. If I were to meet you on the street once in three months, I'd bore you to extinction talking about myself, but we can't seem to find anything to write about once in two years. I'm so hot about this that I'm afraid I'll have to start a campaign at the reunion. Wouldn't that be a good time to get the ball rolling? Shucks, I don't want to read about 1913 this month and then have someone hang out the sign '1913 is so dead that there'll be nothing in the notes for two months.' That's not our old spirit.

"Here's my contribution for April, anyway.—Somehow finding time outside of hours to help engineer an outdoor club here in town. We constructed a toboggan slide with banked turns and a bridge across a brook that would make any of our engineering brethren look on with wonder. You could tell it was a XIV man that banked the turns as a decimal place must have slipped on the slide rule while calculating the elevation of the outside curve. But at least, no one has fallen into the brook. Only one trouble, I wish some physicist would tell me how to reduce the coefficient of friction when the temperature reaches thirty-four degrees. At that point, our schedule goes to pieces.

"Ken is a good old scout, and the Secretary wishes to assure him that he will be glad to thrash out this matter to Ken's heart's content at the reunion next June."

Capt. Edwin C. Gere notes that he has changed his address to Camp Lewis, Washington.

We have a very interesting letter from Roger Freeman, VI: "The combined influence of the latest issue of the Technology Review, a 1913 Class Luncheon under the leadership of Sousa Brooks and the arrival of the February issue of The Tech Engineering News have been sufficient to arouse

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1913 Continued

me to dig from the bottom of the 'pending basket' your various appeals for class news; tenth-year reunion notifications and duns for dues.

"In the first place, a check for \$3.00 is enclosed, which should take care of the immediate past, present and future.

"The files indicate that the last time I wrote you was about eighteen months ago and apparently just prior to the arrival of Roger M., Jr., on July 20, 1921, his dad's birthday. (Can any of you beat that?) This makes the count two, Anne Bradstreet now being nearly four years old. Brooks can vouch for their heftiness, as he bumped into me in the subway the other night in the rush hour when I was trying to transport the two of them by that method and assisted gallantly. We are still living at 801 Riverside Drive.

"As for the job, we have been busy during the past two years, principally with the report, design, and for the past ten months the construction of the first of a series of four water power developments on the Tippecanoe River in Indiana for the Insull interests in Chicago. This first development at Norway, Ind., has a capacity of about 10,000 H.P. and consists of a thirty-foot dam about 1000 feet long, being partly earth-fill with core wall, and the balance a concrete gravity section including a power house and three flood gates. These flood gates of the Stoney type are unusually large, each being twenty-two feet deep and thirty feet wide, and having a total capacity of about 30,000 sec. ft. of water. This first development is costing the Insulls about \$1,250,000.

"Fritz Blomquist, '15, is our resident engineer on the job and until about six months ago Ralph Stearns, '01, was with us as well. We thought we had another Tech man in a Master Mechanic by the name of Frank Russel who said he was an '02 man, but one night he disappeared with wife, children and new (unpaid for) Ford Sedan, leaving some bum checks and has just recently been pinched in Los Angeles.

"We have run into more than the usual amount of litigation in developments of this kind, as certain of the farmers in the surrounding country believed, through misinformation and misunderstanding, that we were going to drown them out and ruin their drainage system and not only have our condemnation suits been stubbornly fought but injunction proceedings have been instituted against us. This has meant more than a dozen trips to Indiana for me since last July and considers ble time on the witness stand as well, which has been valuable experience. We made a very complete analysis and report on the existing drainage systems, and the effect of the development on future drainage. The job should be completed in May.

"Unfortunately, I was West at the time of the reception here to Dr. Stratton, but I know him well and one of my brothers, (John R., Jr., '16) has worked under him as a physicist at the Bureau of Standards. The Institute is very lucky to get a man of Dr. Stratton's ability and personality.

"One sees very few of the boys. I ran into Hez Holmes, whose office is down the street, some months ago and see Phil Barnes, who is on the floor below my office, once in a while. Gotherman called the other day, having been until recently with the Goldwyn Pictures about a block away. We are at 8 West Fortieth Street.

"Last Wednesday I attended Sousa Brooks' monthly luncheon at Stewarts. All eight present were married and a total production of eight children were reported.

"I am counting on being with the gang for the Tenth Reunion next June."
A dozen men like Ken Blake and Roger Freeman would put 1913 Class Notes in a class by themselves.

#### 1914

H. B. RICHMOND, Secretary, 62 Tufts St., Arlington 74, Mass.

G. K. Perley, Assistant Secretary, 45 Hillside Terrace, Belmont, Mass.

Tut-Ankh-Amen. Any king that can hold the front pages of the daily papers 3,000 years after his death is at least entitled to some credit as a publicity agent. We just bet that he was in constant communication with his class secretary. How times have changed! During the past month, just one Fourteener was interested enough to write the Class Secretary. The new plan for the Review calls for notes every other month; that is, the odd classes one month and the evens the next. Any class that desired, is given permission to have its notes printed every month. Your Secretary knew that he would always be looking for notes on the wrong month and thought that most of the class would be doing likewise, so he announced that if he could obtain the support of the class, he would publish notes every month. Support lacking but attack continuing. Your Secretary has heard all the excuses on earth. They have been furnished by the coal dealer trying to explain why the coal has not arrived. If there is any Fourteener that has an excuse for not writing the Secretary, let him send in the excuse, for it alone will make interesting reading. Let me say right here, that the excuse will have to outdistance the coal dealer and his only competitor, Baron Munch-

Tut-Ankh-Amen. Thankful, indeed, I am for thy having lived. You have furnished me with material for the first paragraph, and now you are going to do likewise for the second. Can any world event take place without a Fourteener coming into it in some manner? Of course not! Then what has Fourteen got to do with Tut-Ankh-Amen? Surely, we graduated several classes after Tut. Yes, but was it not our own Walter J. Hauser, IV, who made the surveys of the inner chambers before they were opened? It was. Hauser is with the Metropolitan Art Museum of New York City. Shortly

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after the Armistice was signed, he started his first trip to Luxor with the Metropolitan Art Museum expedition. The present trip is his fourth one and this time he has been loaned by the Metropolitan Art Museum to the Carter expedition, which is the one making the final explorations into the inner chambers. Hauser has been actively engaged in this final work, made some of the first surveys, and has been present at the various openings. We hope to have a letter from Hauser later on. The present information has been obtained from his father.

The only letter to be received, came from L. W. Burnham, VI. He is a captain in the Marine Corps and is at present stationed in San Domingo. He writes as follows: "I received your letter of October sixteenth a few days ago and am taking the first opportunity to reply.

"I have been down here since a year ago last May, and have been busy all the time. You may not believe it, but the soldiering life is not all bunk fatigue. "My term of foreign service is due to expire in June and I expect to be back in the Estades Unidos before the first of July."

The Bulletin of Engineering Education contains the announcement that Charles G. Maier, formerly in charge of the research laboratory of the Phelps Dodge Corporation of New York, was in June, 1922, appointed Assistant Director of the Mining and Metallurgical Research Department.

H. H. Ambler is now with the R. C. V. Dyer Co. in the capacity of General Manager. The class joins the Secretary in extending sympathy to Ambler, in the recent loss of his father.

The Boston monthly luncheons have been continued. On February sixth, R. E. Hardy gave a very interesting talk on the new products of the Truscon Steel Co. Those present at that luncheon were Storke, Sherman, Hardy, Wilkins, H. S., Wilkins, C. W., Crocker, Tallman, Atwood, Blakeley, Favorite, Chase, Perley, and Richmond.

The increasing popularity of the radio business is at least responsible for some members of the class communicating with the Secretary. Stump wanted a potentiometer to make his radio-frequency amplifier work, Borden wanted instructions for a whole set that would take up his spare cash saved from his State of New Jersey position, Ricker wanted all the parts so he could make his own, Judge a high speed recorder, and so on. You can bet the Secretary never misses a chance to make a sale.

Say it with letters to the Secretary!

#### 1915

Francis P. Scully, Secretary, 118 First St., Cambridge, Mass. Howard C. Thomas, Assistant Secretary, 100 Floral St., Newton Highlands, Mass.

The first paragraph of the March letter in the Review must have been rather mystifying. Frankly, it was not the intention to have any news in

the last issue, as there were hopes that a skipping of an issue would cause such a protest that it would arouse activity among the class.

Capt. Jim McIntyre, I, whose histrionic ability is well remembered by those who went to summer camp and "Was 1st Los" is in Boston and still in Tech as a member of the Army School. His eminent instructor in Gas Engine Laboratory, our own Dean Fales, is still driving a new car at the rate of one per month. Jim, be it known, has an everlasting fame in the history of Boston's Indoor Sports, being the winner some ten years ago of the first dancing competition held at Le Petit Trainon on Boylston Street. We remember very well when the Boston Post appeared with a full-page article showing our illustrious classmate in a number of artistic poses, the majority of which were evolved for the edification of the photographer. The pose which showed Jim with the lady daintily reclining in a horizontal plane and supported only by Jim's shoulder and one arm was most effective. Of course, if Jim's wife ever reads this, I expect to be rather out of luck, but perhaps the Secretary is entitled to a certain amount of poetic license.

Seward Highley, I, is now the distributor of the Wade sparkplug in Boston. He is interested in a number of different automobile products.

Carl Wood has forsaken engineering and is with Stone & Forsythe Company, 67 Kingston Street, Boston.

Newell Foster who is with Fred C. Church, 141 Milk Street, Boston, comes around on insurance matters now and then.

To the best of the Secretary's knowledge, Arthur Ball is the only man in the class who has been closely connected with the moving picture industry in the field. Ever since graduation he has been working on the development of the color idea and the picture "Toll of the Sea" now running all over the country is a monument to the fine work he and Easty Weaver have been engaged in. It is probable that some of the readers have seen the picture and, if so, they will notice when the different names of the cast are shown that it states 'Photography by Arthur Ball.' The following letter from Arthur is therefore most interesting:

"Replying to your request for some dope for the class news, I submit the following:

"As you probably know, Weaver and I have been working for several years on the development of a process for taking motion pictures in natural colors, known as the Technicolor Process. The inventive and development work has extended over the period since 1915, except for the war years. D. F. Comstock, who was a Professor of Physics when we were students, started the development and is still the technical head of the Company, but Weaver and I do not deny a considerable share in both the inventive and the development work. Weaver has tended more to the theoretical side and is now undoubtedly one of the greatest experts on color, color vision, and color photography in the country and has just lately been made Chairman of the Colorimetry Committee of the Optical Society of America. I have tended more in the engineering direction. After designing and constructing some new cameras I was in California last Spring with these cameras, taking our first real picture. It is called "The Toll of the Sea" and was recently released by the Metro. Perhaps you have seen it.

"So many people are interested in 'takin' the movies' that a few reminiscences from California may be of interest. The first thing that one does on entering the life out there is to get some sport clothes—golf suit with knickers, trick shoes, shirt with wide soft collar left open at the throat, and a cap that points backwards. I was able to get all these things, except the latter, which I never could seem to find, although I inquired at all of the leading shops. When all dressed in these clothes I was said to look very much like Rudolph Valentino and judging by the admiring looks, of which I was not unconscious when walking down Hollywood Boulevard, it must have been so. I turned down several offers from big producers, as I felt I did not have sufficient vices to justify my being made a movie star.

"Have you ever seen Kenneth Harlan on the screen and noticed that aggressive forward thrust of the head which the girls so much admire? He was in our picture and in photographing him I found that it isn't natural with him, but is a necessary pose assumed in order to keep his double chin from showing. Then there's the Bearded Men's Union, so well organized that you can't get a villain with a real beard unless you pay him twice as much as an ordinary actor with a false beard.

"The press agent is a prominent figure and the more hokum regarding a star which he can squeeze into the daily papers in the guise of news, the better man he is.

"I know you probably won't believe all this so, I won't say any more along this line (unless you ask me) and so proceeding in more reasonable vein:—It is a strange life to an engineer because instead of facts and figures most people are interested in how they look and in how much publicity they are getting.

"From still another angle it is a strange life to an engineer and that is in the almost complete lack of any real technical knowledge throughout the whole industry. Nobody ever measures anything and nobody can tell you why he does things in his particular way. The cameraman, who knows that the intensity of light varies reversely as the square of the distance from the source, is very learned.

"But take it all in all, taking motion pictures is a charming occupation. And especially is this true of taking motion pictures in color. It combines both science and art each in a high degree and yet it's very much like play. It's mostly outdoors, say in a garden or at the beach and with interesting people along and two or three musicians. So it's play—but not child's

"Here's some more class news: Easty Weaver has a new arrival in his

## Travel

In acknowledgment of the constantly increasing interest in foreign travel, the Technology Review inaugurates a set of pages on which will appear advertising of reputable concerns whose business it is to deal with some feature of this type of commerce. We recommend them for patronage.

1915 Continued

family, a son, born February 28, named James Baird Weaver after Easty's grandfather, General Weaver."

John Bauer is now in Mobile, Ala. Unfortunately, he has been having some difficulty with his eyes and cannot be engaged in any work where there will be any strain on them. I understand that he is running a gasoline filling station somewhere on the outskirts of the City.

Before these notes reach you, you will have received an appeal to write. The success of the Class Notes depends entirely on the cooperation of the members of the class.

1916

D. W. Barker, Secretary, 14 Marathon St., Arlington, Mass. WILLIAM W. Drummey, Assistant Secretary, 533 Washington St., Dorchester, Mass.

Your Secretary is trying very hard to produce a class directory, and to that end has sent questionnaires to every member of 1916. If you have not received one, that is sure evidence that your listed address is wrong. Write to Barker. Fill out these answers and help in a matter that will bring much benefit to you.

As a direct result of the answers received to date, we are able to give you the following information:



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Thomas G. Jewett, Jr., is building roads for the American Woolen Co., at Shawsheen Village, Andover, Mass., and is also working for the City of

George Crowell says his boy's name is "George Robert, called Bob, possibly after our erstwhile, alleged comedian and bridge player, Bob Crosby." He hopes, when he grows up, he will have a better reputation for correspondence than his real namesake.

Theodore D. Parsons has been four and one half years with the Winchester Repeating Arms Co., of New Haven, as sales engineer; two years with the American Steel & Wire Co., as foreman, and since July first, with the Wickwire-Spencer Steel Corporation at Worcester, where he is now General Foreman in charge of production at the Morgan Works, and makes springs of all kinds.

M. S. Wellington has a mission: "Monkeys imitate and that is what they (present senior class) are doing in regard to caps and gowns for senior week. Why break a long and distinguished custom which was and is one of the things which sets M. I. T. off and makes it distinctive as certain customs of other places make them distinctive. I should like to hear what the opinions of some of the other members of the class are."

G. P. Allen has a problem for architects: "A hotel with all rooms having a southern exposure and all windows overlooking a river on the East.' (Sec. Note: Easy, turn the river from East to South!)

Charles S. Reed is at Fort Sill, Okla., taking the Battery Officer course in Field Artillery. He will be there until June 15, 1923.-Theodore Strong was married January 19, 1923 to Miss T. M. Shaak. Their address is 2034 Eutan Place, Baltimore, Md.—E. B. Johnson, VII, married Miss Kathryn Green of Kentucky, on February 1, 1923. Their address is 1008 South 18th Street, Birmingham, Ala.-F. G. Darlington, Jr., VI, married Miss Jessica Raymond, April 22, 1922.—Russell E. Lowe married Miss V. M. Rodgerson, November 30, 1922.

Nat Warshaw writes: "The new directory will be a wonderful thing. Someone is showing great judgment in making our class the third to have a directory, even if we are not the first. The best of luck to you in this venture.

"As you will observe from the questionnaire, I'm a family man now and certainly can recommend that 'state' most highly,

"I am still with the concern I started with after the war and am just as keen as ever about this gas engine business.

"Last year I designed a new model, a six-cylinder, 21/2" x 10", and had the pleasure of observing its operation in a large yacht in New Orleans last summer. It was very successful.

"Just think, if we had our directory in shape, I probably would have found some one from our class in New Orleans at the time and had a pleasant session

K. B. Owen writes: "In the last two years my work has taken me into practically every state and while I have little to report about myself, I have bumped into quite a few of the boys.

"Believe I am one of the privileged few who has seen Bill Farthing since the war. Met him in El Paso, where he was doing something with auto-- just what, I never did find out. Also met Ken Sully across the mobiles river in Mexico, 'where there ain't no eighteenth Commandment and a man can raise a thirst.' He was there recuperating from the drudge of working in some mines in Arizona, and a good time was enjoyed by all. Am sorry that I do not know the address of either of the above now.

Spent some enjoyable evenings with Rusty White in Seattle. He is still batting the ball and very much the same old Rusty. Before leaving, we organized the 'Dizzy Dozen', which will have as its object a 100% quota at the next general reunion in 1925.

'Also met Lew Laurason and Ken Dean at Huston. In the latter's case I had to leave just a little too early to witness the final tying of the knot that binds, but will say that his judgment still runs high.

'As far as I am concerned, I am still single, white, and twenty-? and floating around the country, trying to educate the masses that everything that looks and acts like a talking machine isn't a Victrola unless you look under the lid and see the little dog that made 'His Master's Voice' famous."

John Gore tells: "After graduating I became Dr. Lewis's private assistant

for a while and then in February joined the first Course X-A school of Chemical Engineering Practice. I saw this through to the end and then went to Washington and worked for a while at the American Universal Experiment Station as Junior Gas Chemist. I saw service overseas in the C. W. S., beginning as a sergeant and received my commission as lieutenant while in France. While there, I became well acquainted with such celebrities as Christy Mathewson, Cobb, Haughton, etc.

'After arriving home, I was Chief Chemist for the Pawtucket Gas Co., later with the Russ, Galater Co., in Westfield, Mass., and now with the Beachnut Packing Co. All '16-ers will be welcome if they will call at Carajoharie,

along the Mohawk Trail."

C. F. Lewis informs us that: "After graduating, I went to Washington under appointment with the Bureau of Public Roads. I was assigned to work in North Carolina under the Federal Aid Road Bureau, and I've been there since. In 1920 I resigned from the government service and have since been in partnership with W. L. Spoon in private practice.

"Have seen only two Tech men and have heard from none. Would be glad to see any of them, though, whether or not I know them, if they will

stop in Greensboro."

Donald Choate gives this short biography: "With Harvey Hubbell, Inc., Bridgeport, as Sales Engineer until I enlisted at Fort Sheridan, Ill., and served during the war as Lieutenant of Field Artillery. After discharge was with Ford Motor Co. in the office of the Superintendent in Detroit. After a year and a half, I left there to take my present position with Whipple & Choate, 1032 Laurel Avenue, Bridgeport, Conn."

Chuck Loomis, the old reliable, says: "I forgot to mention in my last letter that I met Al Lieber, all dressed up in a Captain of Engineers' uniform. in the dining room of the Post Tavern, at Battle Creek, last summer, and later had the pleasure of visiting him at Camp Austin, where he was in command of a battalion of the Citizens Training Corp. He left there soon after for parts unknown; he seemed to like the life very much.

"I had dinner with Jackson, IV, again in Grand Rapids not long ago. He is carrying on as an architect on his own. I also met Gabe Hilton a month ago and sat up until the wee small hours gabbing. He is manufacturing and merchandising motor truck axles at Oshkosh."

Everybody will be glad to know that Mr. and Mrs. C. S. Makepeace announce the birth of a daughter, Frances Nightingale, on January 25, 1923.

We have lost one of our number. Robert Richard Fellows, died January 1923. At this writing, we have no other particulars.

Charles Lawrance tells of an experience that came to a happy conclusion: "After completing a tough school year (my first at educating the nation's youth), the medical profession at last persuaded me to submit to the operation of advancement of the muscles of the eyes in the hopes of relieving the strains and the continual pains. Well, it was worth the cost of the operation to see the surgeon work on me. I was conscious through it all and talked to the surgeon and nurses. By the deftest kind of touch, he laid the eye open and reached the muscles, then by another cut, separated the eye from the source of its attachment and by lapping them together and sewing again, shortened the muscle and thereby strengthened it. So you see my Tech training in mechanics again helped by persuading me to lie quietly and let the M. D. finish the job.

"The following weeks were spent in training a company of ambitious youngsters at the Citizens Training Camp at Devens and really we had a very enjoyable time, that is, after it was all over. Camp itself was a lot of hard work and believe me I am a booster for such camps, as they give finest kind of training in citizenship and self discipline and widening one's viewpoint to that of the other fellow. Uncle Sam's taxes were well spent there.

"Am back at school again."

Jack Sanford, is now a Captain and a practising architect in Hattonchatel and Apremont, France, doing work in rebuilding the devastated regions. Rumor has it that he found a pot of gold coins while excavating, and has now turned a gold digger.

John Woods is in Lowell, Mass., and is the proud owner of a broken arm as a result of getting too familiar with his flivver.

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1916 Continued

Harry Lavine says: "Saul Lipman, X, is manufacturing platinum and Tungsten contacts for ignition systems on internal combustion engines and modestly parades as the Independent Contact Co., 231 Tenth Street, West New York, N. J. This is his latest and most successful venture, having previously installed filters for the Industrial Filtration Co., and designed drying towers for fruit juice pulverization. It can be safely said he is making good.

"W. T. Kneiszner has kept very much away from most people and things, but not his business. If some '16-er knowing Bill better than the writer can suggest some workable expedient which, if applied, will temporarily separate Bill long enough to extract a 'hello' to his former friends, let's have it."

Bill long enough to extract a 'hello' to his former friends, let's have it."

Norman J. Vile lets us hear from him: "In graphic terms my class news versus time curve might be called low and of practically constant, zero slope.

"On leaving the army early in 1919, I joined the Boston Pressed Metal Co., of Worcester, Mass., as a sales engineer, leaving there in July, 1920 for New Britain, Conn., where I am still employed at the Corbin Screw Corp. At present, I am dividing my time between sales and production in the speed-ometer end of the business.

"Arvin Page dropped in early last month on his way from the New York Auto Show."

Harold W. Whitney is with the Factory Mutual Laboratories, 144 High Street, Boston, on investigation, research and experiment of anything pertaining to fire prevention.

John W. Stafford is able to raise a thirst to some profit: "As a large portion of my time is spent on sugar plantations in Cuba and Santo Domingo, which are operated and developed by the West Indian Sugar Finance Corp. of New York, I am sorry to say I seldom, if ever, see any '16 men. The location of my work has some advantages, however."

H. E. White writes: "Giles has recently come into Stone & Webster's Boston office. Arvin Page is a man about town for the moment. We had the thrill of renewing our hair-raising experiences in the Ordnance Department at the Adams House.

"I met Bob Crosby on Summer Street, during lunch hour. He was manufacturing radio equipment. Wyman is with Holtzer-Cabot and states that he is to be considered in the radio game.

"Arthur Wendle wrote a nice letter from Wilmington, N. C., in which he mentions that he is with the Tide Water Power Co."

Sandy Claussen gives us information that we are very sorry to learn. He writes: "It is with a profound sense of loss and sadness that I report the death of Anna, wife of H. B. Shepard, II, at the Newton Hospital on February 24, 1923.

"The details of Mrs. Shepard's death are tragic. It was, I believe, only in the last issue that we told of Henry's happy wedding at Springfield on

December 2. Henry took his bride on a short honeymoon. On returning, Mrs. Shepard was almost immediately stricken with empyema. Pneumonia set in, and the end came after weeks of suffering.

"How to console; or with what words to alleviate the pain and anguish of our dear classmate, is beyond the range of our capabilities.

"Our hearts go out to Henry in silent sympathy in the hour of his great loss and irreparable bereavement. May he be physically sustained and his grief softened in the purity of that great Christian faith that knows naught but everlasting life and love."

#### 1917

RAYMOND S. STEVENS, Secretary, 30 Charles River Rd., Cambridge, Mass.

An envious Secretary of another class claims that 1917 was born with a silver spoon in its mouth — that it just naturally had more men in it, that were awake than most other classes. The remark was made when he learned that twenty-seven men attended a class lunch and that an even larger number signified their intention of attending 1917 lunches regularly. To be sure, the effect is cumulative, and any of us will turn out more readily for a gathering that is assured of a healthy attendance. But there may be something in what he says.

The 1917 lunch has been cooking a long long time. We admit that it might well have been started months ago, that there is perhaps even a chance for criticism for not starting it sooner. But that's why we have so many officers, so we can pass the dear old buck along. We were not in uniform for nothing. And anyway, the lunch is here to stay, although we may throw in a dinner now and then to please Dean and Brick Dunham and a few others that have to come in from Woburn and Roxbury, and prefer not to shut down their plants. As far as Dickson is concerned, we could make it a trip to Bermuda. He represents Bethlehem Steel in this vicinity and business has been so good that he has been told to ease up for a time until the mill catches up with him.

We must be more serious. We have sensed an atmosphere of facetiousness in this otherwise most admirable magazine of Lobdell and Hodgins, and we must do what we can to offset it. To be sure, it will be read regardless of any atmosphere whatever. They put on a different cover every month and the unsuspecting subscriber is never sure that it is not something else, say a hardware catalogue. (Hardware catalogues represent Mr. Stevens' idea of interesting literature.—Sec.)

The lunch was held at the Engineers' Club, through the courtesy of Ted Bernard, on Tuesday noon, February 21. While the Engineers' Club was desirable for the first of the series, some more central place will be picked

for the next. Notices were sent to men listed as being in or very near Boston. Notices of succeeding lunches will be sent those who attended this, those who said they would attend others, and those who write in a request that they be notified. The more the merrier.

In this list of those who attended, the number of courses represented is worthy of note: K. E. Bell, XA, F. Bernard, VII, Paul J. Bertelsen, IX, Arthur A. Carter, VI, K. M. Childs, II, William Colleary, IV, I. B. Crosby, XII, C. M. Dean, X, A. D. Dickson, I, A. P. Dunham, II, R. H. Eaton, II, Harrison P. Eddy, Jr., XI, Alfred J. Ferretti, II, H. Frank, X, Larry Gardner, VI, A. E. Gilmour, II, G. A. Gramstorff, IV, Richard Hardwick, VII, B. I. Lewis, XIII, H. E. Lobdell, IV, R. J. McLaughlin, XV, Douglas H. McLellan, IV, Harold F. Powers, II, R. A. Schroeder, XII, Raymond S. Stevens, XV, L. E. Wyman, XI, Walt Wood, XV.

There might have been further delay if Bob Marlow had not threatened similar action in New York. The recent New York Alumni Reception had shown what could be done there, and it was certainly Boston's next move. Marlow has asked for a list and intends to get the gang together. If you are in or near New York, you can reach him at the Tech Club, Gramercy Park.

Bill Colleary, IV, reports that he is extremely busy on the design and supervision of some quarter of a million dollars' worth of buildings. He is specializing particularly in churches, rectories and schools. Harold Powers, of Powers Brothers, Contractors, of Brockton, Mass., is understood to be busy



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with concrete construction. Much of their work, in season, is on concrete roads, and he claims part of the Newburyport Turnpike as a specimen. Frank Howard, X, is out of the army, or out except for the pay roll, and is doing chemical engineering graduate work at the Institute.

"Born to Mr. and Mrs. Wesson Hawes, (XV), a son, Donald Keene Hawes, on Jan. 7, 1923." This news was relayed to us by his uncle, H. N. Keene (XV), of the Plimpton Press, Norwood, Mass. Hawes is a partner in the firm of Wm. Kellers Co., Wholesale Shoes, of 95 Church Street, New York, and is living in Newark. Speaking of shoes—Bob Erb, XV, writes that the new McElwain Shoe Company, The J. F. McElwain Company, of Nashua, N. H., is now making one hundred dozen shoes per day and is very optimistic as to the future.

The Lynn Telegram-News of February 4, said:

"Announcement has been made of the engagement of Herbert G. Burk, son of Mr. and Mrs. Charles Burk, of 15 Lynn Shore Drive, and Miss Gertrude M. Des Roches of Perth Amboy, N. J. Mr. Burk is a graduate of Lynn English High school, and of the Massachusetts Institute of Technology, Class of 1917."

The Boston Herald of February 11 published this under the caption "Concord Woman's Club":

"Mr. Robert M. Blackall, holder of the Rotch traveling scholarship and the traveling fellowship, M. I. T., will speak tomorrow afternoon on "Rome and the Romans," at 3.30 o'clock, illustrating his talk with the stereoptic

"Mr. and Mrs. James Randall Cole announce the marriage of their daughter, Elizabeth Dorothy, to Mr. Louis Ernest Wyman, on Saturday, February the third, nineteen hundred and twenty-three, Framingham, Massachusetts." Ah, what a shock that must be to the bachelor's club! It may still be said of Louis that he was a bachelor longer than any one else in his class. He has an executive position with Wm. Underwood Co., of Boston (Underwood's Deviled Ham, etc.).

Brick Dunham submits this comment on the financial situation and the recent call for funds: "Here is the result of our letter asking for class dues and a bit for athletics. I received seventy-two replies, which netted \$182.98 of which \$40.98 was designated for athletics. After paying the bills due, I am left with a bank balance of \$99.95, which to me is discouraging. Of course, that will probably last us a year under ordinary circumstances, but it is running too close. Even with the assistance which the Institute affords us it costs \$22.00 to send a letter to the class. We ought not to have to do this every year.

"I can't imagine these returns can be equalled by 1916 or 1918, but I feel sure that there are many more who would send along their two bucks if it were brought to their attention again.

"We want a good tenth-year reunion and we can't do it without some money."

Possibly, there are others in the same boat with Frank Conaty, I, Capt. F. A., who writes from the Field Artillery School at Fort Sill, Oklahoma:

"Am enclosing check for class dues and athletic fund per your request of several months ago and would appreciate it if you would forward it to Dunham. Have mislaid the letter giving his address. Am sorry to have so long delayed in sending it, but it didn't have a ghost of a show at Christmas time.

"I suppose you are having a rough time filling up the '17 column in the new monthly Review; it sure seems good for one who doesn't see a Tech man in a dog's age to read news items that aren't three months old. There's only one Tech graduate here, Charlie Read, '16, who, although in the Ordnance, is taking the Battery Commander's course here with me. There are several officers who have been at the 'Stute for a year in one of the various Army courses.

"As for myself, life has been rather uneventful since coming back from France. Was at Camp Grant, Ill., for over two years with the Third Field Artillery. From there, we marched, à cheval, to Camp Knox, Ky., in September, 1920—492 miles. Last May I took the Fifth Training Battery, which I was then commanding, over the road to Camp Custer, Mich.—405 miles in eighteen days by horse. Stayed at Custer until August, when I

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1917 Continued

went on leave back East, and was in Boston several days. Saw Johnnie DeBell and Lobbie at the 'Stute, but almost everyone else was resting up for September, as Summer school was about over. Then out here in September and have been at the Battery Commander's School since. Hope to get a detail back East when I get through here in June, so that I can get to some of the '17 times. Have missed them all so far. Expected to get back for the five-year reunion last year, but was just arriving at Camp Custer when it came off and couldn't get away.

"My family hasn't increased in size, but the boy is rapidly increasing,
— nearly three now, and keeps me busy handling him the few hours a day
the Army doesn't.

"I haven't any news of any other members of the class that I haven't seen already in the Review. To tell the truth, I've been such a rotten correspondent that most of them have given me up in disgust. Saw Al Lieber, '16, at Camp Custer last summer. He's a Captain of Engineers. Also had Dr. Hitchcock's son, Lauren, as one of my lieutenants for a couple of months. He was at Tech when war broke out, went into Naval Aviation, and back to Tech after his discharge, and is now a lieutenant of Field Artillery; he graduated from the Basic Field Artillery School at Camp Knox last June.

"Well, while I've a writing streak on, guess I'll try to answer some sixmonths old letters. Maybe I can dig up some news for you for a later issue, unless they give me a dose of my own medicine and don't answer for another six months."

Stan Krug paid the Institute a visit recently. He is with the Highway Commission of the City of Columbus, Ohio, and may be addressed in care of that body or at 1039 East Broad Street. Stan is looking hale and hearty and seems to be prosperous and enjoying life. In fact, next to our esteemed Philadelphia brother, one D. E. Bell, he takes the cake for appearance of plutocracy. Since writing the above, the aforesaid Philadelphia Magnate paid a visit to the remains of the old Home Office, but that is another story and anyhow, who cares to hear alibis for the Athletic and Phillies.

#### 1918

Julian C. Howe, Secretary, 551 Tremont St., Boston, Mass.

My, how the time flies when you're busy! Boston Garters have a Velvet Grip, but a firm one on my time, and it seems just a couple of weeks since I was drumming up my old faithful secretaries for more news from you all. By the way, let me put in a word of praise for the work they are doing. It means a lot of patient hard plugging to get your quota of news in every other month, and they have been doing well and I appreciate it. You fellows have

responded well too, on the whole, and now we have it coming, it will be easier to keep in touch with each other and we will enjoy meetings like the five-year reunion this June all the more, for the contacts we have had through the Review. What's the matter with you fellows we haven't heard from? You are really losing a lot in not having your classmates know where you are and what you are doing. Drop your Course Secretary a line and get into the swim where you belong.

Outside of business hours your Secretary has been enjoying life with his little family in Wollaston, where they hold a little house and lot (the bank really owns it) and, as all his brother benedicts will testify, he wouldn't trade for a million. William Eastman Howe is over a year old now, and he certainly is a corker, into everything all the time, and just full of it, though he's worth all the trouble he makes and lots more, too. If we held a baby contest next June, there would be no question but what he would win every prize at a walk. (You see there are some compensations for editing the Class News after all.)

We trust that every man has carefully considered coming to Boston next June and if at all possible, is definitely planning to come and has let the committee know that he'll be there. Get behind this thing and we'll have such a worth-while reunion that none can afford to miss it.

#### Course II

S. W. FLETCHER, Secretary

67 South Broadway, White Plains, N. Y.

News is so scarce this month that I have to step outside the course, much as I hate to do it, to find enough material to fill up space.

The 1918 gang around New York had a luncheon Saturday, February 25, and we had all of six men in attendance, but with Gard Gould as Chairman and the determination to have a luncheon once a month, we have hopes of working up some enthusiasm. Bob Longley, Gard Gould, Phil Dinkins, Bill Foster, Ev. Rowe, and yours truly attended this one.

Now for Course II.—H. V. Sturtevant, who gives his address as the Sullivan Machinery Company, 824 Kirby Building, Cleveland, writes as follows:

"I was glad to receive your card today. It was a much-needed reminder to get busy and drop the long absent line to the Secretary. I am sorry to say that I haven't yet had a good look at the last Review, but will attend to that matter when I get back to Hamilton, Ohio, where I am rooming with C. H. R. Johnson of 1921. I am on the road most of the time for the Sullivan Machinery Co. of Chicago and like the work first-rate. Since leaving Tech in 1917 I spent three years in the Army Air Service and finally went back for the sheepskin in the Class of 1921. The only thing I missed out on was

the Harvard degree, which I believe all the other 1918 men got, but so far I haven't needed it.

"Once in a while I meet some of the old bunch. Last March in Chicago, I saw Irwin and Bob Longley. Bob wasn't married then, but if I am not mistaken he was well on the way. He didn't say much, but you can almost always tell. One of those sedate birds is Bob, slow but sure, and a good picker when it comes to the ladies. And then one day in a hotel lobby who should I see parked in a big armchair but Tom Kelly the chemist. Ten to one he is waiting for a jane, I thought, and sure enough, in a few minutes up she came, and by golly it was his wife. Simmons certainly did well by Tom because I had dinner with him later and a finer meal I never ate.

"Did you hear about Stan Cummings, Course II? Last year he was Assistant Professor of Mechanical Engineering at the Oregon State Agricultural College at Corvallis, Oregon, and this year he is a Professor, I think, at LaFayette College, at Easton, Pa. During the last year Stan has been working with Professor Lipka of the Department of Mathematics at Tech on a new mathematical book, which all the old bunch who are still in Engineering work should know about. It is a compilation of all the formulæ we ever used at Tech, no matter what course, made up in the form of nomographs or charts, so that a solution of any of them with any values of variables, can be obtained in a few moments. Stan deserves a lot of credit for this, as he has done practically all of the drawing and most of the designing of the charts, which was a whale of a task and nearly cost him his eyesight.

"Do you know where Al Saunders is now? I wish you would send me his address if you have it. Also Weiscopf, alias Gasoline Gus. I would like to see that old herring choker once again. He was about the handiest man with a newspaper club that I ever saw. He and Ralph Whitcomb.

"While in the Sales Training Course at Sullivan factory in Claremont, N. H., E. W. Noyes, 1921, Mining and myself did some experimental work on vacuum pumps. The A. S. M. E. has recently accepted the report on the tests and will probably publish it in the Journal very soon.

"Do you know who of the 1918 men are in Cleveland? I get in here once in a while but usually do not stay long enough to get around very much."

E. M. McNally is with the Allison Engineering Co., Indianapolis, Ind., and spends his spare time being Secretary of the Indiana Association of M. I. T. He says:

"I received your post card of November 20, and compliment you on your part of the 1918 section of the Review.

"I am afraid I haven't very much news. There are no 1918 men in this vicinity, although we have a good live Technology organization in this town. We have all told about thirty active members in the Indiana Association. Most of these men are considerably older than I am. In fact, I am the baby of the outfit.

"When I left the Institute I went into the Naval Air Service, finally ending up with the Commission of Lieutenant (j. g.) and in Indianapolis. I had been detailed by the Bureau of Engineering, Allison Engineering Company on work in connection with the geared Liberty motor. On getting out of the service, the Allison Engineering Company offered me a position and I have been with them since as assistant to the Chief Engineer and General Manager. We do some very interesting engineering work, principally for the Government in air-craft power plants and transmissions. We have also designed and built a twelve-cylinder 450 H. P. marine engine and a marine lighting unit.

"There isn't very much else to say. Still single and not any immediate prospects of getting married."

"I promised to let the gang know when I joined the ranks so here goes:

'Mr. and Mrs. Frances James Kitchell announce the marriage of their daughter, Louise, to Saxton Woodbury Fletcher on January the twentieth, nineteen hundred and twenty-three, Boston, Massachusetts." (And his notes were right, on time, too!) I am living at 67 South Broadway, White Plains, and am still waiting for lots of answers to my cards. I need news from everyone to keep our course in the running. Remember that I write 150 cards and you write one letter, not a bad percentage from your point of view.

#### Course III

#### C. H. WATT, Secretary

79 Appleton St., Arlington Heights, Mass.

I am afraid my allotment of news will prove a disappointment to you this time. I have heard from Pete Sanger a couple of times, but the other miners must have "dug themselves in" for the winter in regions unknown.

Pete is successfully holding down his job as Eastern Representative of "Rock Products" with his headquarters in New York City and home at 11 Maple Avenue, Maplewood, N. J. Have received no further news from Bill Turner, but presume he is still Traveling Freight Agent for the Texas Pacific R.R. with sleeping quarters in the "Smoky City." Pete informs me that Chen is leading a revolutionary army in China. Whether this information came from Chen himself, or is a mere conclusion drawn from the fact that he was always up-to-date while at Tech and must therefore be following the most popular pastime in his present environment, is a matter of conjecture on my part. Unsubstantiated rumor has it that Alf Grossman is about to take the step that will make him a fellow benedict. Here's to you, Alf, old man, if it is true and if it isn't true, don't let it weaken you. As silence prevails in the region of Palmerton we conclude that George Halfacre is still doing double time around the Zinc Smelter for the New Jersey Zinc Company. As for myself; since resigning from my position as Assistant Manager of the Silver Dyke Mining Company, Neihart, Montana, I have been hard at the

task of doing nothing, which I find more tiring than work. However, I expect to join the forces of the Crew-Levick Company the first of March and shortly thereafter cast my lot as their representative in Maine, selling lubricating oils.

#### Course VI

#### J. R. POTEAT, Secretary

c/o Lockwood, Greene & Co., 38 South Dearborn St., Chicago, Ill.

I haven't had a great deal of contact with the fellows during the interim between the last issue of the Review and today.

However, I've news from a couple of the men, one of whom came through Chicago, recently, and we were going to get together for lunch, but I got so tied up, that we couldn't work it out. That was E. J. Clogher, who is with the Wagner Electric Co., in their Cleveland office. His reason for being here was his transfer from St. Louis to Cleveland as sales engineer and so we missed out on seeing each other. But we had a good rag chew over the 'phone. I also have a letter from Mal Eales, which, though it was received some months ago, has some news I don't think has been passed on. Milt Loucks has a young son six months'old, so he is a father of long standing now. Mike Adams went to India in the summer of 1920 for the Angus Company (almost Anguish, isn't it) and he is in the Steamer Department of the Pacific Mail Steamship line to Hongkong and San Francisco, and is handling accounts, supplies and repairs for steamers.

Don Clarke is with the Commercial Department of the A. T. & T. Charlie Johnson, my electric laboratory partner for a time, is in New York now. Charlie Gray is with Western Electric.

Erving Betts got conscience-stricken by my plea in the Review and I got a letter from him as a result. He is strong for the reunion and stronger for the Ft. Wayne Engineering and Manufacturing Company, with whom he has been working since January. He mentions having seen H. N. Blount, of Course XV and Pete Strang. The matrimonial ice has been buzzing around Erving and while he's not placing any Betts, he'll probably come through soon, for he is engaged to Miss Marion Van Wormer of Auburndale, who is in the Class of 1923 at Boston University.

#### Course XV

#### C. E. BASSETT, Secretary

21 Grove St., Westerly, R. I.

All Course XV men in the vicinity of Providence who are members of the "500" are invited to the first annual get-together Friday evening, March 2, at the Providence Plantations Club. Unfortunately, Julian Howe writes that all material must be in Boston on the 28th of February, so your Secretary, who plans to be present, will have to postpone his report of this meeting until the next issue of the Review. Here's the letter sent out by Prof. Albion N. Doe, '20, of Rhode Island State College, Department of Engineering, Kingston, R. I.:

"Save the evening of March 2, for then you are to meet the other of the hard working bunch at the Providence Plantations Club, 7.15 p.m., and the others want to meet you. All the group who are in this district have written that they would be there, three travelers adding 'if the date can be made.' (This includes C. E. Bassett.)

"Professor Schell is coming, with Mrs. Schell. Mrs. Doe and I are looking forward with great pleasure to the event. Bring yourself, a member of the gentler sex, if you wish, and a smile, next Friday evening."

The Secretary was pleased to receive the following letter from Hoye, '18, who has followed the engineering line more closely than some of us: (No names mentioned, of course).

"I have received your note from my home address in Boston and am glad to give a word or two toward the Review.

"I am here in Muskegon in the Planning Division of the Continental Motors Corporation. Until May, 1921, I was with the American International Shipbuilding Corporation in the same line of work.

"I have not been in touch with the fellows of 1918, recently, but hope to improve this situation through the Review notes.

"I appreciate your note and will surely be glad to keep you in touch with the activities of any of the fellows of Course XV-1918, with whom I may come in contact."

Who can supply the present address of an old nineteen-eighteener—Harold B. Morrill? The last letter addressed to him was returned with this notation in a distinctly feminine hand: "Mr. Morrill left New Orleans in February, 1920, going to Birmingham, but has discontinued writing to his friends since leaving there."

Any of the boys who may be journeying to New Orleans this Spring, may obtain the address of one of Morrill's former friends by making proper application to the Secretary.

#### 1919

PAUL D. SHEELINE, Acting Secretary, 19 Congress St., Boston, Mass.

Since the last issue of the Review went to press, several interesting letters have been received from the newly-appointed Course Secretaries. There are, however, one or two changes which will have to be made. The men who have accepted the position of Course Secretary for their respective courses are as follows: Course I—Scott Keith, 20 Hartford Street, Newton Highlands, Mass.; Course II—Lawrence Dalton, Unity House, Park Square, Boston; Course III—W. S. Burbank, U. S. Geological Survey, Washington, D. C.; Course V—Richard F. Cashin, 390 Harvard Street, Cambridge, Mass.; Course

VI-Arthur C. Kenison, c/o Moore & Summers, 97 Milk Street, Boston, Mass.; Course VII-Marshall C. Balfour, 653 Washington Street, Quincy, Mass.; Course VI-A-Henry R. Whiton, Hingham Center, Mass.; Course X-C. McCarten, c/o Sherwin-Williams .Co., Chicago, Ill.; Course VIII-George F. French, c/o Warren Mfg. Co., Milford, N. J.; Course XI-Roger T. Hall, 36 Henderson Street, Arlington, Mass. and Course XV-John Stevens, Jr., Appleton, Wis.

You will notice that George C. McCarten is Secretary for Course X in place of Gene Smoley. Pierre Blouke of Course IV and Alfred W. Hough of Course XIII have not replied to the letter sent them, so that at the present time these two Courses are not represented by Secretaries. We hope that by the time of the next issue of the Review our new system will be in running order and that notes from all the fifteen courses will be available for editing.

From a recent copy of the Boston Herald comes the following news item.

We sincerely congratulate Paul Swasey on his promotion.

"Paul F. Swasey, a graduate of the Massachusetts Institute of Technology, has been appointed superintendent of the Farm and Trades school on Thompson's Island, to succeed Charles H. Bradley, who died a year ago. Mr. Swasey has been acting superintendent since his predecessor's death.

"He was born in Barre, Vt., March 14, 1896, the son of Mr. and Mrs. Charles D. Swasey. He attended the public schools of Barre and Waterbury, and entered the University of Vermont in 1915. The following year he transferred to the Massachusetts Institute of Technology, from which he was graduated in November, 1918.

'During the war, he was stationed at the Engineer Officers' Training School at Camp Humphries, Va. He later was employed by the General Electric Company at Schenectady and by a Boston architectural firm. He undertook

his work at the Farm and Trades school in August, 1921.

While in college, Mr. Swasey was active in athletics and was a member of the track and cross-country teams at University of Vermont. He is a member of the Phi Delta Theta fraternity, the Vermont Association of Boston, the Tech Architectural Club and the Masons. He married Miss Eunice Hunt of Glenn Falls, N. Y., last September."

The following letter was received from Don Way: "Have shoved off for a four to five month stay in Arkansas. The 1919 men around New York are planning to go to the Tech Show as a class and Fred Given is taking charge of getting them together and arranging for a block of seats. Would you send me a list of the 1919 men in New York and any of those nearby so that I can properly canvass them.

"If you have occasion to write me, use my New York address, as all mail will be forwarded."

We like to see men from our class get ahead in the world and make a success and because of this, it is particularly gratifying to hear as you will below, of the way Jack Stevens is forging ahead. We all wish you the best of luck. Tack.

Remember that a year from now we will all be thinking of our Fifth Anniversary, so if possible make your plans for June, 1924 now, so that you will be sure to come to Boston.

#### Course V

RICHARD F. CASHIN, Secretary 390 Harvard St., Cambridge, Mass.

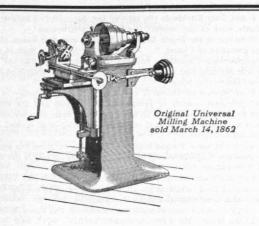
The following is a little dope on Course V and one or two men of some

Dutch Seifert is still in the dyestuff game with the American Aniline Products, Lock Haven, Pa. He writes: "If anybody owes me any money, or if the class of '19 is going to collect dues, they can get me at The New Fallon Hotel, Lock Haven, Pa." He is unmarried, but I understand he slinks up to New York City occasionally and not always for business reasons.

Stu Kelsey who has dropped out of sight more or less is with The Standard Textile Products Co., Buchanan, N. Y. He was married last May. His letter in part reads: "As to my marriage, there wasn't much to it except fact. We were married on May 27, the other half of the we having previously been Irene Conway, fair daughter of one of Hudson River's most famous cutter captains. It was a simple home affair. We left town right after the reception for the proverbial parts unknown and immediately set up in our newly-acquired home in Clifton, where you know I was plant chemist at our Athenia, N. J., plant. Incidentally, my best man was Lester (Babe) Adams, 1917 Columbia Baseball Captain. He is my running mate here in town. Last December I was transferred to our Buchanan, N. Y., plant and will be there until further notice." Kelsey's home address is 106 Elizabeth Street, Peekskill, N. Y.

Nuts Nutting is with the Arlington Mills, Lawrence, Mass. This corpulent youth, lest we forget, was married in September, 1918, to Marguerite Adams of West Medway, Mass. They have a young son, who bids fair to be one of the shining lights of the 1941 class at Tech. His mailing address is Lock Box 262, Salem Depot, N. H. This bird's wedding was one I never shall forget. Kelsey, Seifert, Herbert Federhen a '20 man, and myself, were coming over the road to Boston after the wedding, in a hearse that belonged to Kelsey. We left Medway at 11.30 p.m. After four blowouts on the same tire, intermingled with a visit to the Dedham Police Station, we landed in Boston at 7.15 the next morning.

Frank Hoyt, I believe, is an instructor in Leland Stanford University. Clara Poppie, previous to this year, formed the good habit of sending me an annual New Year's card, but this year she failed me. The last heard of her, which was last April, she was with a patent medicine plant in California. Her address is 660 O'Farrell Street, San Francisco, Cal.



# An Important Invention

The Universal Milling Machine was one of the most important machine-tool inventions which sprang from the necessities of the Civil War.

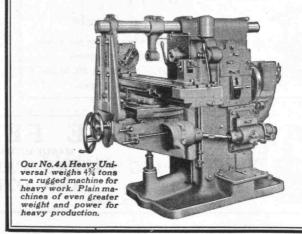
At that time, the manufacture of percussion nipples required large numbers of twist drills made by the best method then known—filing spiral grooves in steel wire with a rat-tail file.

Hand-filing was so expensive that Mr. Joseph R. Brown, of J. R. Brown & Sharpe, was consulted as to the possibility of a machine for grooving these drills.

The result was the Universal Milling Machine, suitable for many kinds of spiral milling, gear cutting and other work previously done by hand.

From this beginning the Brown & Sharpe line has grown to include over 30 sizes of milling machines—Universal, Plain, Vertical Spindle and Automatic. A large number of these are heavy machines particularly suited to production work.

#### BROWN & SHARPE MFG. CO. Providence, R. I., U.S.A.



I met Don Kitchin in the subway last Saturday. I believe he is doing graduate work at the 'Stute. His home is in Arlington.

Recently in the North Station I bumped into Bob Bolan, the elongated speed swimmer of Course X. He was hiding behind a bush in the form of a newly-developed mustache and was hardly recognizable to one who hadn't seen him for four and a half years. He is with the Merrimac Chemical at South Wilmington, Mass.

Chet Stewart of Course X is the New England manager of the Beach-Russ Company, dealing in pumps, air compressors and the like. Let the above titular cognomen sink in, but don't let it take your breath away. He swears his pumps are the real cheese for anything from rarified air to semicongealed molasses.

Tony Coutier of Course X after hanging his M. S. on the wall, signed up with the New England Oil Co. of Fall River. His address is the Y. M. C. A., Fall River, Mass.

Last fall I saw Bernard Coleman of Course VII at the Yale Bowl after the game. I tried to attract his attention, but owing to the fair one with him he was absolutely oblivious to his surroundings.

As for myself, I am still making dyestuff with The Essex Aniline at South Middleton, Mass. No, I am not married.

Course VII

Marshall C. Balfour, Secretary 653 Washington St., Quincy, Mass.

I am enclosing a small news contribution for Course VII and will attempt to keep the news coming. I am to be accounted for as a first-year Harvard Medical Student. There are three more years ahead of me, but the first year has gone quickly, so I am encouraged. I find that time passes more rapidly when one stays in one spot. It was a bit difficult to get back on a student basis after four years of practical work, but it is easier now that I

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have survived the first year without mishap. I hope to continue in public health work after completing study for an M.D.

Since my contributions to the column have been rather meagre, I will review some of the high spots since graduation. If it is too long, please feel free to edit it.

My work with the Red Cross kept me in Geneva most of 1920, but in January, 1921, I went to Prague, Czecho Slovakia to organize some public health educational work for the Czech Red Cross. I spent seven months there and became acquainted with some of the problems of Central Europe. The Czecho Slovaks are the leaders of Central Europe, and American aid and influence have had an important part in bringing them to be a stable and well-organized republic.

After finishing work in Prague, I had a month's leave, which Mrs. Bal and I enjoyed in the Carpathian Mountains of Slovakia and in travelling through Austria, Hungary, and Germany. Vienna was and still is, I believe, in a tragic position. We were there at the time of the bread riots and one was impressed by the seriousness and dejection of a people whose city was once one of the gayest and most colourful of Europe. From Vienna we made the boat trip down the Danube to Budapest. Incidentally, the Danube is not blue, but the muddiest of mud. Nevertheless, the villages and fields which dot the banks are picturesque and the whole route is lined with tiny water-power grist mills of medieval times. Budapest is worth a long journey to see. It has many beautiful buildings and distinctive architecture which, I understand, marks the beginning of Eastern influence in Europe.

We visited Berlin, Dresden, and Munich on our way back to Geneva. After a couple of months at headquarters, I went with my boss to Poland and the Baltic States in November, 1921, to make health educational surveys for the American Red Cross. As one example of the new geography of Europe, I crossed ten border lines in going from Warsaw to Riga via Danzig, with all the joys of customs, so was able to note at first hand the results of the "self-determination" of the Peace Treaty.

# Public Sales

We have purchased 122,000 pair U. S. Army Munson last shoes, sizes  $5\frac{1}{2}$  to 12 which was the entire surplus stock of one of the largest U. S. Government shoe contractors.

This shoe is guaranteed one hundred per cent solid leather, color dark tan, bellows tongue, dirt and waterproof. The actual value of this shoe is \$6.00. Owing to this tremendous buy, we can offer same to the public at

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The Winter of 1922 was spent in Poland, where I was engaged in organizing child health educational work for the American Red Cross and the Polish Red Cross. After farewell visits to Paris and London, we set sail last April for return to the land of the free and prohibition.

I spent the past summer chasing mosquitoes in Alabama for the International Health Board of the Rockefeller Foundation. The work was the control of malaria in small towns and cities of the state. Alabama Summers and New England Winters make a backhanded combination, but I will probably go South again this Summer on the same work.

Stuart J. Hayes did his "bit" in the army and then returned to the 'Stute and took an M.S. degree in 1920. Since that time, Hayes has been with the Ludlow Manufacturing Associates, manufacturers of burlap and jute products. He went to India in 1920 and spent a year there for his company and is now back in Ludlow, Mass., as chemist and bacteriologist of the above firm.

After spending a year as Assistant in the Biology and Public Health department, James M. Strang went to Virginia to take a post as Instructor in Physiology and Biochemistry in the State University Medical School. During his last year there, he completed his credits for the first year of medical study. Jimmie is now at Harvard Medical School as a second-year student.

George Kahn and Louis Wolff entered Harvard Medical School after graduation from Tech and became M.D.'s in June, 1922. George and Louis made their mark as students, taking two of the six "Cum laude" honours given in their class. Drs. Kahn and Wolff have excellent appointments as "house officers" at the Boston City Hospital and the Massachusetts General Hospital, respectively.

#### Course XV

JOHN STEVENS, 3D, Secretary

c/o Fox River Paper Co., Appleton, Wis.

It certainly seemed good to hear from you again despite the somewhat dubious proposition which you submit. I say that because I realize, in agreement with your views also, that it is no easy task to keep the men in our class communicating at regular intervals, as we would like them to do. However, I shall most gladly accept the responsibility of getting what results I can from my course and sincerely hope that we may have something to offer you from time to time.

Personally, I have been a very poor correspondent and as a result have received very little news concerning the old bunch around Tech. The Review has been splendid of late, however, and without it I feel that I would be completely segregated from my associates in Boston, which really mean so much to me. I wish that you could find time to write me about yourself. It has been a long while since I have heard from you in an intimate way, so I know very little of the "inside dope" concerning your existence. For my part, I have been a very busy man during the past two years and am very glad to report that fortune has smiled upon me of late and I am now a Director and Treasurer of the Fox River Paper Co.

#### 1920

KENNETH F. AKERS, Secretary, 54 Dwight St., Brookline, Mass.

Dear Gang: Well, I received a few letters this past month but not very many. However, if the good work keeps up in proportion, we'll get going good before long.

Eric Etherington has been awarded a Buckley scholarship at Harvard, where he is attending the Business Administration School.

I met Bob Sjostrom on the street in Springfield this past month and had a short chat with him. He met Dick Rowe in Paris and had quite a spree from all accounts. Bob is joining our ranks as an active alumnus which we are all glad to hear.

George (Pierpont) Morgan wrote me briefly from Beaumont, Texas. (Incidentally, he is sore 'cause I haven't written him; all of which I don't blame him for.) He says they haven't had but one frost this winter. That sounds too good to be true, considering the many precipitations we New Englanders have gone through since December. What say you all?

Speaking of warm winters, Skeetz Brown writes me from Mexico saying that he plays tennis and baseball most every day! Pretty soft! I also understand Volstead slipped up in his noble work and didn't get any hold on the Mexican politicians! I think I'll take up mining in Mexico. Need any pick and shovel men, Skeetz?

Jack Logan came out of seclusion and gives us news of several men.—Grosscup and Kinghorn were active in making the M. I. T. Musical Clubs' Concert in "Philly" a success.—John T. Elliott is with the General Electric Co. in Schenectady, and has recently been married.—Gerald Tattersfield is in "Philly" with his father in the wool business.

R. Peverell Warriner is a draughtsman in Quincy, Mass., working for the Bethlehem Ship Building Corporation.

Jack Logan himself (he being the contributor of the above news) is with the Pennsylvania Railroad, with five months to go to complete a three-year special Electrical Apprentice course. He expects to be in Altoona, Pa., shortly. He says it's overall work with early hours, but he doesn't work for any Harvard man!

Cliff Rathbone sent us an announcement of his marriage to Dorothea DeWolf Brownell, whom I am sure we all remember at Tech, as she was one of our "co-eds." Nineteen twenty extends its best wishes for a bright and happy future to you both.

As soon as I can get well started on my new position in the oil game, I am going to do as I promised as regards organizing 1920 into courses, and

#### SHOP LIGHTING.

In an address delivered before the members of the Western Pennsylvania Division of the National Safety Council, Pittsburg, Pa., March, 1918, by C. W. Price, the importance of good lighting in industrial establishments was discussed, and the disadvantages of poor lighting were clearly shown by some figures mentioned by Mr. Price.

A large insurance company analyzed 91,000 accident reports, for the purpose of discovering the causes of these mishaps. It was found that 10% was directly traceable to inadequate lighting and in 13.8% the same cause was a contributory factor. The British Government in a report of the investigation of causes of accidents determined a close parallel to the findings of the insurance company above quoted. The British investigators found that by comparing the four winter months with the four summer months, there were 39.5% more men injured by stumbling and falling in winter than in summer.

Mr. John Calder, a pioneer in safety work, made an investigation of accident statistics covering 80,000 industrial plants. His analysis covered 700 accidental deaths, and of these 45% more occurred during the four winter months than during the four summer months.

Mr. C. L. Eschleman, in a paper published in the proceedings of the American Institute of Electrical Engineers several years ago, reported the result of an investigation of a large number of plants in which efficient lighting had been installed. He found that in such plants as steel mills, where the work is of a coarse nature, efficient lighting increased the total output 2%; in plants, such as textile mills and shoe factories, the output was increased 10%.

In an investigation of the causes of eye fatigue, made by the Industrial Commission of Wisconsin, it was found that in a large percentage of industries, such as shoe, clothing and textile factories, the lack of proper lighting (both natural and artificial) resulted in eye fatigue and loss of efficiency. At one knitting mill, where a girl was doing close work under improper lighting conditions, her efficiency dropped 50% every day during the hours from 2:30 to 5:30 P. M.

The above mentioned incidents indicate how important a factor lighting is in the operation of the industrial plant. It has been well said, "Light is a tool, which increases the efficiency of every tool in the plant." Glare or too much light is as harmful as not enough lighting, and in no case should the eyes of the workers be exposed to direct rays, either of sun or electric light.

Windows and reflectors should always be kept clean; that is, cleaning them at least once a week, for where dust and dirt are allowed to collect, efficiency of the light is decreased as much as 25%.

Good lighting, in addition to its other marked advantages, is a strong incentive towards keeping working places clean, for it clearly exposes any place where dirt or other material has been allowed to collect. White walls and clean windows glazed with Factrolite Glass will eliminate the sun glare and increase the illumination 25 to 50 feet from the window from 38% to 72% as compared with plain glass.

Lighting is of primary importance to every employer and fully warrants a careful investigation of the subject, for there is no substitute for good lighting, and if it is not supplied the efficiency of the entire working force must suffer a serious reduction.

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appoint course secretaries. The present scheme is too large a proposition for one man to handle. At that time, I will submit a balance sheet of 1920's finances, which are fairly rosy with a bank balance of some \$330.00. Yours for 1920.

#### 192

R. A. St. Laurent, Secretary, 754 Morton St., Mattapan, Mass.

CAROLE A. CLARKE, Assistant Secretary, 528 Riverside Drive, New York, N. Y.

To open these notes in an interesting manner is as difficult as eating a soft boiled egg with one chop stick and a toothpick—interesting to the other fellow but tough on the performer. But if we put a little sand on the end of the toothpick and on the bend of the chop stick, the nice fluidly egg will have something to stick to and we have the egg lifted into the air, and with a final twirl across the gap into the well-known cavern. Ugh! What has this to do with 1921—well it has just as much to do with it as the joke which follows, sprung this morning by my thirteen-year old kid brother—yes he's younger than I am. He asked me, "Do you know the joke about the saucer of milk?" Says I, "No." Says he, "It's the cat's!"

Among the interesting letters received last month is one of great interest from Oscar F. Neitzke, X, bei Countess von Kalckreauth, Suarez Strass 18, Berlin-Charlottengurgin, Germany. He is a "Student Chemie" at the University of Berlin under Nerust, Haber, Placck, and when he returns, Einstein. Instead of enclosing a check, Oscar says he will instruct his banker at home to pay class dues and for The Review, but in the meantime he enclosed 1000 marks worth \$250.00 when issued but TRY and get it now. Oscar goes on to write.

"Your intelligence test forwarded and received yesterday. Glad to see your committee is on the job. I can't make any payments from where I am, but will notify my Secretary at home to send you a check. How does it happen that I don't get the Review? Is it just because I didn't pay my dues last year? I shouldn't think a little thing like that would keep you from sending it. However, I have resolved to turn over a new leaf and pay the dues, so I expect everything will be O. K.

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"Although I put down Boston as the place to have a class reunion, I really think that Berlin would be much better. At the present rate of exchange and prices, you could feed the whole gang and get them drunk on champagne for \$13.67, (slide rule accuracy). Champagne today costs 18c a quart. The cost of a glass of beer is less than the experimental error. I bought a most wonderful cuckoo clock the other day, not because I needed a cuckoo clock but because they are only 8c apiece. If you will add up the stamps on the envelope and divide by the rate of exchange, you will make the astounding discovery that it costs me ½c to send you this letter.

"I travelled in a first-class compartment across Germany and back for 35c. I go to the opera twice a week and sit in the best seats in the house for 20c. I am living with a countess in a two-room suite, and the room I am sitting in is of the order of magnitude of 10-250, and the rent is \$1.20 per MONTH. (Don't get any rash ideas when I say living with a countess The countess is sixty-nine years old.) The maid is, as the women would say, a perfect jewel, and the most wonderful cook you ever heard of, bootblack, everything, and her wages are 1000 marks, or 3½c a month.

"Everything else is the same. I bought a peach of a fur coat for 40 bucks. Binoculars, cameras, and all that sort of stuff are ridiculously cheap. Living expenses are about \$8.00 a month.

"The university here is the bunk. All one does is attend lectures, no quizzes, no home work, no exams; at the end of the term we get credit for whatever courses we signed up for.

"I am doing a doctor's thesis in Haber's laboratory. Haber is a foxy old boy. Nernst isn't such a dumbbell either.

"A couple of months ago I went through the Nitrogen fixation plant in Wittenberg. Good place for a X-A station.

"The only drawback here is that we are afraid of a revolution at any time, or that we will be forced to leave on account of the Hungersnot. In that case, I think I will go to Zurich, Switzerland or Oxford, England. If, when you get around to write to me again, there has been a war or revolution in Germany, send it to my home address, otherwise it will be O. K. to send it here care of the Countess.

"The Countess knows all sorts of Army Generals, Majors, and even some second lieutenants. They are all pretty good chess players. When Ludendorff is in town again, she is going to have him over.

"It's a great life. Much better than working. Regards to all the boys. What are you doing yourself? Shoot me those addresses I asked you for, if possible.

"Be careful what you do with that thousand marks I am enclosing. The dollar hit thirty thousand today, so I can afford to be generous."

Owen G. Wilson, Jr., X, 1230 Proctor Street, Port Arthur, Texas, is with the Gulf Refining Company, that city conducting experimental work of a varied nature. To quote: "Don't let this prompt reply shock you. It is merely a result of circumstances. Just now, I am in the lazy hangover after a vacation at home, so have some time on my hands. And since I hope to get a new job shortly and know that my father will be here for a visit

#### CHARLES H. JOHNSON M. I. T., '05

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Monday, there will be no time for writing after today. Besides, a kind uncle (bless him) gave me as much as two dollars for Christmas, so I can do that part of a well regulated letter to the class secretary,

"It seemed fine to get back to United States again and of course this uncivilized town seems worse than ever now. If you ever happen to run into any of those \$10,000 jobs in an oil refinery, refer them to me. I would like to get within 500 miles of a dress suit and see if it scared me. Of course, there are advantages here, but they are all in the work. They have given me general experimental work in the plant, so I have a good chance to learn the dope, especially as I steer away from straight chemistry. But the surroundings make me curious to know if I couldn't do as well some place else."

Richard P. Windisch, XV, 65 Pondfield Road, Bronxville, N. Y., writes that his first job was with F. B. Keech & Co., 7 Wall Street, New York City, stock brokers, as a Runner's Bookkeeper and that his present position is with Strong Sturgis' Co., 30 Broad Street, New York City, stocks and bonds brokers, as a Bond Trader. Dick enclosed a full check and with it, "We are right behind you on the alumni stuff, Ray!"

Arthur W. Skilling, I, United States Coast and Geodetic Survey, Washington, D. C., has been a commissioned officer with the U. S. Coast Survey since departing the 'Stute. To the question as to where to hold our Fifth-year Reunion, Art says, "The Emma Rogers Room." All in favor say Bow Wow! In the good old style Art sends in part of a galley of copy:

"Seven men from the Class of '21, all of them from Course I, got into the United States Coast and Geodetic Survey — Daniel E. Whelan, Jr., Elliott B. Roberts, James F. Downey, Myer Weisman, H. A. Wexler, Edwin F. Delany, and Arthur Skilling.

"Whelan went to North Carolina in the summer of 1921 and joined a party engaged in launch hydrography in the vicinity of Beaufort. He went to Washington, D. C., late that fall, was in the Washington Office a short time and was then sent to Seattle, Wash., with orders to join the U. S. S. Wenonah, about to sail for an Alaskan cruise. At Seattle, Whelan was taken seriously ill and had to go to a hospital, first at Seattle and later at Port Townsend, Wash. He was laid up for three months and when he got better he was assigned to office duty in the Seattle Field Station of the Coast Survey and at this writing he is still there.

"Roberts was with a party doing precise triangulation this Summer in Colorado and New Mexico. When the season closed there, he went to North Carolina to assist a senior officer on a line of precise traverse along the coast.

"Downey joined the Coast Survey this past summer and his first assignment was to a party engaged in making a detailed current survey of New York Harbor. Later, he went aboard the U. S. S. Pioneer and sailed with her around to the West Coast via the Panama Canal. This winter his ship is doing hydrography off the coast of Southern California near the Mexican boundary.

"Weisman joined the U. S. S. Surveyor in August, 1921, in Ketchikan, alaska, and finished the season on that ship, returning South to Seattle aboard her in November. He went North again last spring but in August submitted his resignation and returned home—to Lawrence, Mass., and just now he has an architect's office there with I. Mandel, also 1921, Course I.

"Wexler spent eight months on the U. S. S. Ranger in Porto Rican waters and resigned in November. Delany was on the U. S. S. Hydrographer in the Gulf of Mexico until he resigned in October.

"Skilling was with a party at Willapa Bay, Wash., early last spring; from there he went to Lake Tahoe, Cal., in June, and remained there until November, when he was ordered back to Washington, D. C."

Fred R. Kingman, 271 Central Park, West, New York City, also with his check sends us word that this first job was as clerk with the Emery & Beers Company, Inc., 1107 Broadway, New York City, and that now he holds the position of Assistant General Manager. This company makes the well-known Onyx Hosiery—better known to some than others. To the question of marriage, Fred says, "No," and as to why, "Never could finesse."

Kenneth B. Skardon, I, 200 Willowwood Drive, Dayton, Ohio, after having been a steel designer with Frank Weis, Architect in Dayton, is now Assistant Engineer in the office of Regional Engineer, U. S. R. R. Administration, 226 West Adams Street, Chicago. K. B. was married in May, 1920, to Mary E. Altick. Back with the exam came a picture of James Altick Skardon, born on May 18, 1922, and he is one fine looking boy — looks like K. B. I wonder if he acts like him.

George F. Lord, XV, 16 Kirk Street, West Roxbury, first joined the New England Telephone & Telegraph Company, Boston, doing general machine switching work and is now Secretary of the Coördination Conference and of the Advisory Committee of the same company. Fretz is not married yet, claiming to be "still in my right senses." To quote: "I am enclosing my check No. 76 for my dues to the Alumni Association and check No. 77 for my class dues. Will you please see that No. 76 reaches the proper hands.

"My new work with the Telephone Company is very interesting and I am gaining considerable experience that I think I shall find valuable to me as time goes on. All of the policies in regard to the new machine switching systems which are to be installed in Boston within a few months, are determined by the executives of the company in the two committees of which I am a member, serving as Secretary. It is up to me to follow the progress of these machine switching jobs in regard to building, installation of equipment, etc., and keep this information in such form that the Chief Engineer or anyone else may know what has been done and what has not been done.

"Is the world allowing you your share of the spoils?"

William C. Ready, I, 10 Bertha Street, Lowell, Mass., has been Assistant Engineer in the office of the City Engineer of Lowell and evening Instructor

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of Mechanical Drawing at the Lowell Textile School since leaving M. I. T. Bill isn't married because he hasn't got time, but we are glad to hear from him per follows:

"Happy next New Year to you and all the other members of the 1921 I often intended to write to you, but I either lacked the time or the ambition. I got word just about Thanksgiving that my old roommate W. W. Kittredge, I, was going to resign from the bachelor club in the spring. Her name is Miss Elinor Taylor, Simmons, 1922, of Bridgeport, Conn. Wisey Weisman, I, and Mandy Mandelbaum, I, are conducting a consulting engineer's office in Lawrence, Mass. Joe Collins, I, also conducts an office in Lawrence. Sumner Schein. I. is in business in Chelsea. The last I hear of Elliott Roberts he was in the wilds of the Southwest with the Coast and Geodetic Survey. Dan Whelan, I, was with the same organization. Al Fletcher, XI, went to Tennessee to do research work for the Rockefeller Foundation. Bill Wald, I, and Shorty Hersum, I, are with the State Highway Commission of Massachusetts. Vep Vepsala, I, is in the Army I hear. Bill Macleod, I, is building highways in Illinois. Well, I can't think of any more, but I certainly would like to hear from some of the fellows, especially Course I men. I should think you could arrange for a meeting of the 1921 fellows located around Boston. If you find any of those \$10,000 jobs floating around, let me know and 1'll come on the run."

Jackson W. Kendall, XV, Mail—P. O. Box 599 Pasadena, Cal.; office—67 North Raymond Avenue, Pasadena; Residence—210 South Los Robles Avenue, Pasadena—all the same. He says, "was general roustabout in my dad's office, B. O. Kendall Company, Realtors—and am now Treasurer and Advertising Manager of the B. O. Kendall Company, but then I'm the boss's son, so that doesn't mean a thing." Jack's not married, "Either all women are wrong or I am." On his examination he asks, "Isn't there anyone in Southern California, but Parkinson, Harmon and yours truly? If so, please let me know and I'll look them up." Following is his letter: "Gilman's Hot Springs, San Jacinto, Cal., 1/9/23.—Dear Ray: I dropped quite extended synopsis of why is J W K to CAC a few weeks ago, telling about my doings during the past year, so bawl him out if he doesn't forward it to you.

"Just at present, I'm sojourning at the Hot Springs, with the rest of the New Year's hang-overs, getting over the effects of a fall I had last November, when I was doing a little theatrical work outside office hours. No, not in Mack Sennett comedies! I've been up here about a week and had a grand rest and expect to go home tomorrow. The thermometer is at 91° today and such a grand day, too. My birthday, the third of January, I spent on the Pacific and had a grand swim. (I must give California its little boost) Jack."

Robert B. Frost, X, 14 West Church Street, Bethlehem, Pa., has sent

The Technology Review

#### 1921 Continued

in a very interesting letter worthy of careful reaching. Bob is furnace man on open hearth No. 2, Bethlehem Steel Company, Bethlehem, Pa., and writes, "I was awfully glad to hear from you even if it was a steno letter and the steno did forget what year this is.

"Steel is very healthy these days, thank you, several very large orders having been accorded us just the past week, insuring a rush schedule for some time.

"A few ideas of mine on the trend of technical education may be of interest perhaps personally and perhaps officially. About the time our fathers were striking out in the world, the college man was king. He was sure of a 'good job.' Most of them got one, if they were worth two cents. With them, passing their entrance exams practically insured their future.

"Today M. I. T. is graduating classes of near 1000 men every year. Perhaps she graduates one-tenth of the engineers in the country, ten thousand 'engineers' per year being graduated, and if you have been around you will know that perhaps ten times as many college grads clutter up this world as technical school alumni. For industry to absorb these one hundred thousand college and technically trained men each year, she must put them at work, not in 'good jobs' but in positions leading to good jobs, and very often at the very foot of the ladder - working on the actual engineering work or industrial process itself. Graduates of the future must recognize this fact, and the sooner they do, the better off they will be, for the first two or three years anyway. In other words, our fathers eliminated the competition when they took their entrance exams - their sons will have a severe competition to work through after they have received their diplomas. And in view of what that competition will become in the next few years, I am mighty glad to be able to feel that I need take back seat to no one as far as training goes, thanks to dear old M. I. T."

Kenneth R. Sutherland, II, 157 Ocean Street, Lynn, Mass., labors with the General Electric Company, Lynn, in the Publications Department, writing instruction books, cards, patents, name plates, in fact, everything but advertising. Ken's not married, because he can't find a girl to support him A copy of a thesis on King Tut and King MIT, a treatise of a high and mighty order created by his Cat's Lowness, Kornipopo Rosto Sudland, Phoney Duke follows: "I rise to complain; the Class of '21 is on the road to the bow-wows. First, namely and to wit: two of the officers are Course X men, that in itself would be a terrible handicap even if the other man was all right, but Gawd, he's going to Harvard! Also any one that can collect class dues and live on Riverside Drive — well, I'm broke and therefore move that the nominations be reopened and that no Course X men be allowed to vote. Also, I hate guys that write M. I. T. like this, MIT. Grrrrrr!

"There is so much junk that I want to get off my chest and it's all so darn disconnected that it is difficult to know where to begin. In the first place, I want to explain and apologize for not sending a checque for class dues. As you will note from the questionnaire, Lil' rollo has been working for the Generous Elastic in Lynn and it doesn't take a very great stretch of imagination to know that it is on a meager (piano fortissimo) salary. However, I'm hoping to start out for another concern on the road in a few weeks, selling, and the preliminary drawback is that there will be no income for three or four months. Consequently, I am not letting any iron men get loose at the present time. When I make my pile, I'll build a dormitory for the Vote X Club. Selah!

"And now, old-timer, I've got some news which may be of peculiar interest to you. The Press Association has actually crashed through! They have been taking it easy during the Fall, waiting for the new President to take office and I received a long letter from Bond last week and have also talked with him at various intervals, and I want to tell you, they've put it across. He has had to modify it in some ways, make concessions and pass things by that he would have liked to attempt - it's been a hard pull and they have had some trying times, but they've lasted through and the going from now on is promising to be much smoother. Inasmuch as you are located near the 'Stute, it would help a lot if you could spare a little time now and then to go over and see him and help him in every way that you can. Please don't take the critical attitude with him, however, its effect is too dampening and he wants cooperation. Too many fellows took the critical attitude last year: they would grant you all of the advantages and benefits that you claimed for the Association and then proceed to tell you what to do after you got established. There were plenty of men around school who knew more about starting such an organization than we did and yet it was impossible for us to get them to take their head out of the clouds and sit down with us and help us to solve the immediate problems with the material that we had available. If you can give such advice, and I know you can, I wish that you would try to find time to do it.

"Well, old-timer, that is about all that comes to me at present. I've got some photos of Reg, Harry Junod, Dan Harvey, and Larry that were taken around the time of our Senior Week, and when the time presents itself, will print some extras and send then along for whatever use you may care to make of them. If you have the time and inclination, I would certainly like to hear from you. Tech-nically yours, Ken Sutherland. P. S.—Would suggest we change the motto from, "Do It Now" to "What's Next?"

A. Glenn Stanton and Samuel E. Lunden of Course IV went to France with the A. S. R. A. in June, 1921. When the Tech unit returned in September they decided to stay with Europe as long as their funds stayed with them. They hit England first, then Belgium, France, Switzerland and Italy. They write: "The Fascisti of Italy certainly did their part in entertaining us while in Rome. However, after rioting and killing a few people, the Fascisti decided not to take over the Government until the following year, so with the

excitement over, we left Rome and came back to Paris and then to New York."

Glenn Stanton went back to Oregon. Sam Lunden secured a position with Cram & Ferguson, architects of Boston. In November, 1922, he went home to Pasadena, Cal., for the holidays. He writes: "I was quite surprised to meet Ev Harmon, IV, in Los Angeles on December 28, as I thought he was still in Rome. I believe that he intends to try his luck out West for a while. Ev is looking well and of course returned from Europe with the regulation

mustache." Sam's address is 131 Newbury Street, Boston.

Roy A. Wehe, XV, Big Creek, Camp No. 33, California, after leaving the 'Stute was marine engineer (junior engineer for six months, third assistant engineer for six months) S. S. Fresident Jackson — Passenger and Freight service from Seattle, Wash. to the Grient — Japan, China, and the Philippines. Company address: The Pacific Steamship Company, The Admiral Line, Seattle, Wash., and is now Field Cost Engineer of the Southern California Edison Company in the department of Estimates and Valuation. He has three camps to look after, two tunnel and one dam camp — about 1600 men. Roy writes: "Just finished filling out the History Blanks and hope that you can give me a passing grade. I realize that some of the most important questions remain unanswered, but then you know it takes time.

"I am in 'Sunny California' you see, up in the Sierras. The Southern California Edison Company is working on a large power project up here which is being extended over a ten to fifteen-year construction period. The work consists in building dams, tunneling, and building power houses. At Camp No. 33, where I am, a dam is being built and the intake of the tunnel begins. There is also a powerhouse here which reuses the water from another one further up. I am officially known as the Field Cost Engineer — otherwise by most any hard name. In addition to this camp I have two additional adit tunnel camps to visit at a couple miles' distance.

"It's a great place boys (if you don't mind what you say) dress in regular out-door clothes—live in 'bunk tents' and eat at a big mess—just recall your army days and you have it—nearly. If you want to get back to nature and rub shoulders with he men, this is at least one place to do it.

"I haven't run across any Tech fellows up here. A good many of the Engineers, especially the young fellows, are from the University of California or from California Tech.

"The weather is great here this winter, just freezing now and clear and bright. I wish I could take you on a hike through some of the big pines—
it makes a fellow feel like a million even though he be only a lowly engineer."

Once again, I have had to skim off only a few letters for this issue—space for more will the Review not let me have. Just be patient and you'll get 'em raft after raft.

In closing, you who haven't done it yet — you know — sent in the exam and check — Do It Now.

#### 1922

ERIC F. HODGINS, General Secretary, Room 3-207, M. I. T.

When the Class of 1923 graduates (or, as much of it does as ever will), its Secretary is going to lead a hard life in the Review for his first year, assuming that the gensec of '22 is still functioning as the Managing Editor of that sterling magazine. Nineteen twenty-two has suffered long enough from Editorial deletions. To those of our readers who are not privy to the secrets of make-up (typographic, not theatric) we would point out that being the last of a long line of correspondents in the Review is like being the last of a long line that is playing lustily at Crack the Whip. A pleasant sport, but not to be indulged in by anyone with a tendency to vertigo.

During the past months we have written so much for these notes and then taken so much out of them because at the last minute there proved to be no more room, that we're not quite sure what we have said. Our salvation lies in the fact that perhaps no one else is, either. But it is remarkably evident to us that we haven't mentioned the life and works of President Donald Fell Carpenter (slang for Don) since the July issue of the Review. This is all wrong, particularly since Don's life at the Pyralin Works of the du Pont Company in Arlington, N. J., has been by no means undevoid of incident. Consider this extract from a letter of sometime ago:

"I've just been promoted down here. Heretofore, I've been just an ordinary Wop; now I'm a roll-tender, which means that I should be a self-respecting Wop and have a raise of 3c. The raise, however, is not for me. In a week, I'll be back to the low-brow stage again, when I change departments. I nearly got scalped the other day. I asked my Russian partner why they couldn't find a better man than Lenine. He said cause there weren't any better. I suggested Paderewski. (Highly original spelling.) He said, 'He's Polak.' I said, 'That's why I suggested him.' He grabbed an 18"-knife and I ran. Well, it's all in a day's work."

Apparently, Don got away all right, for we quote from another, somewhat later, letter: "News is few and far between. I'm still a Wop. lo bailo in pocitino Italian multo bene. [The gensec accepts all responsibility for errors in transcription, hoping only that the expression is respectable — you never can tell about those Latin races.] I am, however, two weeks from the finish of my schedule. They are not very complimentary in their final assignment, for after going all through the plant they send me now to the Refinishing Department. At the conclusion of this schedule, I don't know what will happen."

That which did happen is set forth under date of early March. "Things are picking up here a bit, for I am no longer a sub-wop but have actually graduated to the stage of a shift-foreman. It all means that I have charge of one of the departments, the sheeting, and look forward with no small degree

of apprehension to the difficulty of keeping order on the midnight shift in the spring moonlight. It is all very much more interesting, however, and I am sure the time will slip by all too rapidly.

"We had a great dinner in New York last night. Some time ago Dunc Linsley suggested that we get the class together for a dinner and I said Go to it, and darned if he didn't. The net result was a dinner of 43 of the class. They turned out in even greater numbers than we expected, and all in spite of the frightful weather. Park McConnell took notes for the Review."

Course II

J. E. SALLAWAY, Secretary

125 Cushing Ave., Dorchester, Mass.

If the mails do not bring in more data about you fellows I'll have to get out a questionnaire. Just think how much work that would be. It could all be saved by just making out your own little list of answers to the queries; "Where am I?" and "What am I doing?" A stamp is the only other requirement. Let's have it hot, fellows.

So many of the course live in Connecticut that the course-sec is considering paying personal calls on them to find out just what part of the U. S. the erstwhile Tech studes are now inhabiting.

I was dragging through Danielson, Conn., not long ago and bumped square into Tommy West at the Quinebaug Mills. Tommy showed me all through the mill and explained about the different drives and how efficient they were and so forth. All the engineer should know about these things and others, too, were way over a would-be oil salesman's head. I could not sell him any oil, however.

The newspaper clippings of Lipp Lippincott's wedding are still coming in.

It was a gala event for everybody, including Craig.

If marital news keeps coming in as it has been, there will be lots of racket at that Five-Year Reunion. If the whole family comes, it will have to be held in the afternoon.

On January fifth, Irving Whitehouse joined the ranks of the Benedicts. Miss Helen Cleveland Lord was the maiden name of the now Mrs. Whitehouse. Congratulations, Irv. Why not tell us about yourself instead of letting us print this without your permission?

Since last issue, Vin Ring has confirmed the rumor that was circulating

concerning his future plans for incorporating Ring & Co.

I met Bo Barker in town, recently. He is at the 'Stute, but guarantees to sever connections definitely this spring.

El Mink writes that he is with the Bell Co. in Philadelphia. He spent the summer designing a concrete building for someone-or-other, but he did not wait to stand under any eccentrically loaded columns to test them out. Eldor wants to get in touch with any fellows that are earning their living in or around Philly.

Elmer Sanborn is covering himself with glory on the track team and the course extends its congratulations and best wishes for his success.

On my way through Worcester, recently, I gave Bill Hyland a ring at the New England Power Company. Bill is chasing amps and dodging volts.

He keeps them both guessing.

Van Van Gieson is located in Springfield with the Crane Company. Van jazzes around the surrounding country in a flivver selling valves, fittings, elbows, tees or, in fact, anything anybody will take. Sales will jump, we feel, just as soon as Van shaves off his cute little penwiper. No hard feelings, Van.

Met Randy Hogan the other day. He is sporting an army uniform. He

looks really military, but his smile queers the whole act.

Dick Kasch can be met any Saturday afternoon on Tremont Street. Dick is working for the Liberty Factory Mutual out of Boston. Last week I happened to be strolling the beach and bumped right into a miniature '22 reunion. Mal Shepard and Dick the Deacon were exchanging comments on the high cost of living right out in front of everybody. They tried to get an opinion from me about it, but I referred them to some of our married classmates.

Don't delay writing any longer, boys. Maybe some classmate who owes you five wants to get it off his conscience and is only waiting to find out where

Courses III and XIII GEORGE D. RAMSAY, Secretary 2451 E. 72nd St., Chicago, Ill.

Reggie Edmonds recently left Carson Hill Gold Mines, Inc., of California, to accept a position in the metallurgical research department of the Chino Copper Co. at Hurley, N. M. He writes that just at present he and Hickey are both working in that company's experimental plant. Edmond's address is P. O. Box 926, Hurley, N. M.

Another mystery cleared up: Pat O'Brien has finally been located in Badin, N. C., where he is with the Aluminum Company of America in the capacity of a technical assistant in the Reduction Works. Descriptive of his position he says the stencil on the pay envelope tells the whole story; it reads TECH ASS.

Duke Penna returned to his native Brazil immediately following the general exodus of '22 last June. There he is connected with the milling division of the St. John del Rey Mining Co. His somewhat complicated address is: c/o St. John del Rey Mining Co., Morro Velho, Villa Nova de Lima, Minas Geraes, Brazil.

# The Massachusetts Institute of Technology

CAMBRIDGE, MASS.

The Massachusetts Institute of Technology offers Courses, each of four years' duration, in Civil, Mechanical and Electrical Engineering; Naval Architecture and Marine Engineering; Mining Engineering and Metallurgy and Geology and Geological Engineering; Architecture and Architectural Engineering; Chemistry, Chemical Engineering and Electrochemical Engineering; Biology and Public Health and Sanitary Engineering; Physics, General Science and General Engineering; and in Engineering Administration. These Courses lead to the degree of Bachelor of Science.

To be admitted to the first year class, applicants must have attained the age of seventeen years, and must satisfactorily fulfill entrance requirements in Algebra, Plane and Solid Geometry, Trigonometry, Physics, Chemistry, English, History, and French or German and one elective subject. Examinations are required in all subjects except Chemistry, History and the elective, the requirements for which are fulfilled by the presentation of satisfactory certificates. A division of these entrance subjects between different examination periods is permitted.

Entrance examinations are held at the Institute in September. In June, applicants will be examined by the College Entrance Examination Board in Boston, New York, Philadelphia, Chicago and many other cities in America and Europe. A circular stating times and places is issued in advance by the College Board.

Graduates of colleges and scientific schools of collegiate grade, and in general all applicants presenting satisfactory certificates showing work done at another college corresponding to at least one year's work at the Institute, are admitted, without examination, to such advanced standing as is warranted by their previous training.

Graduate courses leading to the degrees of Master of Science, Master in Architecture, Doctor of Philosophy and Doctor of Science are also offered. Special research Laboratories of Physical Chemistry, Applied Chemistry and Science have been established.

#### **PUBLICATIONS**

Bulletins of General Information, Courses of Study, Summer Session, Advanced Study and Research; and the report of the President and the Treasurer.

Any of the above named publications will be mailed free on application

For Bulletins and Information address

MASSACHUSETTS INSTITUTE OF TECHNOLOGY,
CAMBRIDGE 39, MASS.

After spending most of the summer visiting mining properties in Idaho, Parry Reiche joined the survey for that portion of the Lewis and Clark Highway running through the State. Reiche's address is c/o Siems & Carlson, Kooskia, Idaho. He is also authority for the startling statement that George Hopkins has been "geologizing by motor car" for the Sun Oil Co. in the Texas field. Reiche must also be blamed for the gossip that Floyd Wilson is about to sign a marriage contract. Wilson and Frank Wells are with the Ray Consolidated Mining Co., at Ray, Arizona.

We recur to the letter of Red McIvor, which we were forced to omit

from the February Review. Here it is.

"I sailed on the 28th of June from New Orleans on the S.S. Cartago, of the United Fruit Company's line. We had a fine voyage without the slightest bit of foul weather, although a deceiving ground swell in the Caribbean made quite a number of people sick. Luckily I escaped the experience all the way. There were no senoritas on the Cartago, -on the contrary, there were thirty-eight men out of a total of forty-four passengers, - eighteen or twenty out of the thirty-eight men were members of a Standard Oil drilling crew on their way to Ecuador to drill in a new field. I came all the way with them to Guayaquil. A pretty hard-boiled lot for the most part, I assure you, but good-hearted fellows when drunk, which was most of the time. Their cook, an Irishman, never drew a sober breath the whole way. are very highly paid and most royally treated by the Company. Nothing was too good for them and their expense accounts included everything from meals down to laundry and tips, not to say taxi fares. The drillers get \$750 a month, - not year - and the lowest paid man, their cook, draws \$150. I began to think that my four years at Tech were wasted. Why \$750 a month here is a fortune on every pay day. I doubt if the president of Ecuador gets anywhere near that sum. Even in the States it is not to be sneezed at.

"So we arrived in Colon, or Christobal, as the American part is called. Here I spent five days visiting all the interesting points in Colon and Panama City on the Pacific side. Everything in the zone is a la American and the towns along the canal are model American settlements. Moreover, I got the impression that Panama is practically run by Americans who pull the wires to make the native officials jump, so to speak. The United Fruit Company is powerful there; they keep a man in Panama City who does practically nothing but tell the government what the Company wants and kid them into doing it. The Secretary of the treasury is a high brown negro, practically full-blooded, as are a great many other Panamaians. The actual administration of the finances, I understand, is done by Americans. The chief of police

is an American.

"The natives of Panama are naturally dirty and, if left alone, would soon lapse into a most squalid condition. But due to American influence they are forced to clean up and at present Panama is more healthy than many places in the States.

"From Colon I sailed via a Peruvian owned boat to Guayaquil, stopping enroute at Buena Ventura, Colombia, a most squalid, evil-smelling group of huts situated in the swamps. A railroad runs into the interior to Cali, but I didn't have time to visit that city. Buena Ventura is a collection of adobe and bamboo huts with thatched or tile roofs. About ninety per cent of the population is negro, so far as I could judge. There was a poor devil of an American consul and a still poorer devil of a British consul, both mighty enough among the natives but a sorry pair according to our ideas. The spirit of the place had got them I suppose - it would be easy to lose your selfrespect in a place like that. And still Buena Ventura is the principal Pacific port of Colombia. Moreover, the Colombian peso is on a par with our dollar, Colombia being on a gold basis.

'From Buena Ventura it is two days to Guayaquil. The trip is splendid at this time of year only it was a trifle cool when we crossed the equator and I slept under two blankets while crossing it.—As I said the boat was Peruvian, The food and service were not name, 'Ucayli,' about eight thousand tons. so good as on the United Fruit ship and I fought bed bugs for two nights.-Upon reaching Guayaquil, a city of about eighty thousand, I found the resident manager of the company in town and, as I had just missed the weekly river boat to Santa Rosa, he proposed hiring a launch to take us. There happened to be a party of naturalists from the American Museum of Natural History, who were also looking for a launch in which to cruise around the coast collecting specimens of birds. Mr. Tweedy, the manager, placed our launch at their disposal, ourselves with it, and we went for a five days' cruise among the islands in the Gulf of Guayaquil as far down as the Bay of Tumbez.

"There were in the party just five, Dr. Chapman, head of the Department of Zoology of the museum and a world authority on birds, a Mr. Cherrie, also a naturalist of note, fellow of the museum (honorary) and a companion of Roosevelt on his 'river of doubt' expedition in Brazil. Mr. Cherrie has spent more than thirty-five years in South America. There was also a Captain O'Connell of the United States Army, detailed as field man on the expedition. Incidentally, he was to locate some lighthouses for the Coast Survey. I was of some assistance to him in shooting the sun with a transit while he did the same with a sextant. We got one lighthouse twenty-eight miles out in the ocean - something evidently wrong. I rather think it was the chronometer, which got considerable jolting in transit. We had a wonderful trip and I saw parts of Ecuador which otherwise I possibly would never have seen.

"On July 19, Mr. Tweedy and I hit the trail for Portovelo via mule back and made the forty-five miles in just sixteen and a half hours riding. The first day we went up the Santa Rosa river valley or canyon, as it really is, through typically tropical jungles, fording the winding river some twenty times. We camped at night in the foothills of the coastal range of the Andes. The company has a couple of houses for the use of travelers but they were

already in use, and we had to sleep on some boards. Mr. Tweedy did, but I didn't, - not after that mule ride. We rose at half past one in the morning, and were on our way by two. We climbed about five thousand feet in five bours witnessing the sunrise at sixty-four hundred feet on top of a peak, the most wonderful view I have ever seen. We could see into Peru on the south and range after range to the east and north. The valleys were filled with low-lying clouds giving the peaks the appearance of islands in a sea of clouds.

"We arrived in Portovelo at noon. It is in a narrow valley of the Rio Amarillo at twenty-one hundred feet. The mine buildings are in the valley with residences on the northern hillside in natural and artificial shelves. The hills rise rather steeply about five hundred feet or more above the river.

'Watts Humphrey is here as chief engineer. There is another American in the engineering office, an ex-timberman who took a correspondence course in surveying or something. He is of Danish parentage, slow but accurate. We have to survey new drifts, cross-cuts and stopes; sample all development workings and stopes and do the usual routine in the office. We don't do any mining - all we are is surveyors gloryfied by the title of engineers. But we see all the mine, visit the workings and get a chance to see how they are running the property.

"I pay a native woman the equivalent of three dollars a month to clean my room daily, wash my clothes, press all my suits, and shine my shoes. The highest paid laborer in the mine gets about eighty cents a day for eight hours. Cigarettes cost about six cents for a package of fourteen. There are no American made to be had. A quart of native whiskey costs twenty-five cents and it isn't so bad at that-in fact, better than lots of stuff in the States.

"Write. Nothing creates so much excitement here as the arrival of the weekly mail - no, not even when a native falls down a shaft or drills into

a missed hole."

Mac's address is c/o South American Development Company, Box 655, Guayaquil, Ecuador, S. A.

#### Course VI

FEARING PRATT. Secretary 20 Main St., Hingham, Mass.

The following from Don Knight is given the primier position for the benefit of our gensec. Don writes in part:

"I enjoy reading The Technology Review very much. Certainly the powers behind it deserve the heartiest commendation and support of all the

"I spent a good part of this summer on Lake Winnepesaukee in a camp with a couple of my classmates of Course II. While at the camp we did everything from clean out sewers to run sightseeing tours around the lake. I feel sure we should write a ditty on 'My' first Responsible Position Outside of Tech' or 'How I Chopped Wood at Six Bucks per Week.' However, it was a very enjoyable and profitable summer.

"The eighteenth of September I began work with the General Electric Company here at Lynn as an engineering student. I found here at the time the following VI-'22 men: Dewey Goddard, Hugh Haley, Jim Norton, George King, and Hickernall. There are also several others sporting 'white-collar jobs,' among them Tripp, and quite a few Course II men. Bill Elmer was here with us a while.

"Saw Earl Thomas at the M. E. Exposition in New York last month. He is connected with the Hell Gate station. There are quite a few more I've heard rumors about, and I should like to hear about them all. Perhaps some of my statements are incorrect, but I have only been repeating what I have seen and been told. I am told that Duke Nash is a lab instructor and Metcalf is with the "Hygrade" Lamp Company at Danvers. Outside of this, Honorable Secretary, there isn't any more news."

Don was right about Duke Nash. I had the opportunity, recently, to stop at the dynamo lab. Duke was busy there placing his signature on various laboratory sheets. His hieroglyphics were apparently held in high esteemall that was necessary to complete a perfect day. Duke sends his regards to all.

From 220 East Montgomery Avenue, Ardmore, Pa., we learn that Ralph Hayes is in the transmission department of the Bell Telephone Company of Pennsylvania. I am willing to wager that he is looking for some lines to make high frequency attenuation runs on. He writes that Mechling is a partner in crime.

This being our third report for this Course, there remains but one more issue of the Review for this year for news from Course VI. This is my last opportunity until next December, to put in a plea for additional news. It is especially urgent that you write, as it is the last opportunity others will have to hear from you for nearly six months. Fill up your pen and let us know what you have been doing. If you haven't been doing anything, let us know that, too, - it might make some of us feel better. Or, if you are too busy drop a card to me with your summer address.

#### Courses VIII and IX

T. H. GILL, Secretary

6 Montague Terrace, Brooklyn, N. Y.

Once more the trusty Eight and Niners step forward to the front rank and report. It appears that much responsibility and honor has been bestowed upon their shoulders and rumor is already afoot that many of the class' conspicuous famed will be found among its members.

# **Professional Cards**

#### A Directory of Technology Graduates and Other Qualified Engineers

Leonard Metcalf, '92 Almon L. Fales

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TEL. RICHMOND 1860-1861

1922 Continued

Well, fellows, one of the Niners has gone and did it. It's none other than Russ Hopkins and reports are that the knot was tied on December 2. Congratulations, Russ, and we all wish you the best of luck! Russ is a chemist with the U.S. Rubber Company and has been working with the Russian Chemist, Dr. Maximoff. He is now at home at 143 20th Street. Elmhurst. Long Island, and welcomes any news from the crowd.

Capt. Ross B. Warren is now commanding a battery of 155 mm. Howitzers at Fort Bragg, N. C. Lieut. J. M. Shoemaker, U. S. N. and Capt. W. H. Sitz, U. S. M. C. are now on duty in the Design section of the Bureau of Aeronautics, Navy Department, Washington, D. C.

Jack Nichols reports, "Harvard is moving slowly on its way unmindful

of its many shortcomings." He states that Huck Harris is still struggling to learn how to make better pictures and is living at 99 Clay Avenue, Rochester, N. Y. Also, that one Dan Brown of Course I fame is doing his best to get sunburnt way down in Florida. E. E. Taylor claims that all he has to do is look wise while directing the mechanical drawing class at Hempstead, N. Y. High School and reports that Carl Stenhalm of the Class of '21 has charge of the manual training department there.

Gleason Kenrick, after spending the Summer at Onset, Mass., and helping Professor Dillon reorganize subjects 605 and 606, settled down in New York with the A. T. & T. Co. It appears that the rapidly increasing development of the machine switching system has given him no little trouble, as he is connected with the department which deals with the application of the mathematical theory of probabilities to telephone problems. Rollin Baldwin is attending Yale and reports that the title "Instructor in Metaphysics" was recently peremptorily bestowed upon him.

Well, Eights and Niners, this little piece of news speaks for itself and I'm sure it well represents the calibre of the combined courses.

Course XIII

C. FORD BLANCHARD, Secretary 17 University Road, Brookline, Mass.

The Secretary for Course XIII prefaces his remarks at this time with an apology for the shabby way in which he has conducted the office to which his coursemates elected him last June. He begs to state that he has held two and one-half jobs since last June, from one of which he resigned, from another of which he got canned, and in the case of the half job the company dissolved STANLEY G. H. FITCH M. I. T. '00

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# GEORGE P. DIKE

Attorney-at-Law and Solicitor of Patents 350 Tremont Building, Boston, Mass.

of MacLEOD, CALVER, COPELAND & DIKE, Boston and Washington

under him. These circumstances, coupled with the accompanying uncertain state of mind, have not permitted him to indulge his corresponding tempera-

He visited the River Works at Lynn about three weeks ago in the company of Mr. Bowers. The general manager was busy, so he sent for his assistant, Mr. Warner, who conducted them over the plant. While there, they were permitted to gaze on the sublime countenance of Messrs. Marsh and Burtner, and would have gazed on Eddie Morse's ditto were it not for a sore throat.

Mr. Matarese has been in close contact with the Secretary up to just recently. Tony expects to have another try at the 'Stute this third term, after which he will join the ranks at Lynn. Mr. Newhall wrote again, this time from Groton, Conn., where he is in training to be manager of the Electric Boat Company.

The Secretary paid a visit to Mr. Bowers when he was in New York City. Mr. Bowers now labors at Harrison, N. J., for the Worthington Pump and Machinery Corporation. He is finishing his training as an engineer for that company and within a month or two expects to be attached to some sales office. Huger and Bernard are still with that company, and Bernard has been stumping one of the western states, while Huger has been inconsiderately forced to take a trip to Florida.

One of the frequent visitors to our drawing room, Francis Minot, is now a member of the firm of Minot, Olson and Thurber, Boston, designers of fishing vessels. Mr. Greenwood is one of their most promising Naval Architects.

Attention! We think we have detected an engagement. Ask Joe Keenan's roommate, Charles Chase (of Schenectady), whether Joe's intentions towards that girl at Gloversville are honorable.

We suspect K. E. Schonherr is at the Naval Experimental Basin in Washington. We also suspect Donald Bixler is affoat. We further suspicion that Maling is at Fore River. These suspicions are founded on hearsay and not authentic facts. But they appear to be true.

The Secretary, himself, stands on the brink of the unknown. He has a ticket to New York in his pocket, also a berth on the midnight, a suitcase full of dungarees is even now flying across Connecticut. To-morrow morning he will report to the superintending engineer of the United American Lines and after that his career is in the lap of the gods. He would, however, like to put in an appeal to members of the Course to not be so stingy with their postage stamps, and to address him at his home address, and their letters will be answered as promptly as the exigencies of the service will permit.

# Classified Advertising

Mail may be addressed to a Box Number in care of this magazine and will be promptly forwarded to the Advertiser. Other than this, the Review assumes no obligation. Such address counts as five words. Copy for insertion in this section must reach the Review by the 10th of the month, the magazine being on sale the 25th.

RATES-Positions Vacant: No display, 4 cents per word, minimum charge \$1.00, payable in advance. Positions Wanted: No display, 2 cents per word, minimum charge \$0.50, payable in advance.

Display advertising charged at regular advertising rates, which will be furnished on application.

The "Positions Wanted" Column is open only to Members of the Alumni Association in good standing.

#### Positions Vacant

A BIOLOGICAL and physiological chemist is wanted by a nationally known firm of manufacturers of medical and surgical supplies to be chief research assistant. Location near New York. From five to ten years' experience in bacteriological and biological work, with special reference to sterilization is desirable. Address Technology Review, Box 3001.

AN educational institution of excellent reputation established for thirty years in an eastern city, is in need of additions to its instructing staff as follows: Instructor in Mathematics at \$1600 to \$1800 depending upon experience of candidate. Assistant Professor of Mathematics to start from \$2200 to \$2500. (Candidate for this position should have a Master's degree and if possible a Doctor's degree.) Instructor and Laboratory Assistant in Mechanical Engineering at from \$1800 to \$2000. Assistant Professor of Civil Engineering at \$2700 per year to start. Instructor in Civil Engineering at from \$1800 to \$2000 a year. Exceptional applicants for any of the above positions may be able to obtain an increase over the figures quoted. Address Technology Review, Box 3018.

CHEMIST conversant with gypsum, especially as regards its requirements in the building industry, is wanted to take complete charge of a calcining plant and direction of the men doing calcining work. It is important that he shall have a thorough knowledge of retarders and generally of all finished gypsum products. There will be considerable development work in connection with the use of gypsum in several industries which will admit of experimental work to be later applied in manufacturing. Address Technology Review, Box 3019.

EXCEPTIONALLY fine opportunity for a Mechanical or Electrical Engineer to act as production manager for a Department of a large manufacturing establishment making electrical supplies. It is essential that the candidate shall have had experience in the manufacture of such products as carbon brushes, graphite brushes, resistance rods, etc. Address Technology Review, Box 1024.

**E**XCELLENT position open with reputable and well-established firm of advertising agents in Boston for a man with six or eight years' experience in the advertising business. Soluld be up to date and progressive. Only a first-class man need apply. Address Technology Review, Box 3014.

FIRM manufacturing and installing steam power plant equipment wants two mechanical engineers with three or four years' experience to handle sales work in Connecticut and Western Massachusetts, respectively. Experience in this line is desirable and applicant should be a resident of some New England town outside of Boston. Address Technology Review, Box 3000.

FIRST-class architectural draftsman with from five to ten years' experience is wanted by a middle western firm. Applicants should be capable of working on their own resources and carrying designs from sketches to finished product. Competent men will be worth from \$250-\$350 per month. Address Technology Review, Box 3015.

HOSIERY manufacturer west of Mississippi desires to locate a man with considerable experience in time study and production work in hosiery mills to act in an advisory capacity over a limited period. It is essential that the man shall have had experience on hosiery work; other textile experience does not qualify. Address Technology Review, Box 3016.

PRODUCTION manager wanted by firm manufacturing domestic refrigerating machines. Previous experience in either refrigeration or furniture manufacturing is considered essential. This is an excellent opportunity for a man to go with a progressive company in a rapidly developing industry. Address Technology Review, Box 3017.

THREE recent electrical engineering graduates wanted for Distribution Engineering Department of light and power company located in Pennsylvania. Excellent opportunity for advancement. Advise age, education, previous experience, salaries received and present location. Address Technology Review, Box 1026.

#### REAL JOBS FOR REAL MEN

REAL JOBS FOR REAL MEN

SINCE July 1, 1919, William L. Fletcher, Inc., has been commissioned by more than 300 corporations to locate and investigate several times this number of men for responsible positions. The company maintains a Bulletin Service of positions open through which a man, now employed, whose character and ability are satisfactory, may have brought to his attention in absolute confidence at a slight expense all positions open with clients. From 20 to 51,5000 positions are constantly open at salaries usually ranging from \$1500 to \$15,000 per year. All charges for placements paid by employers. Complete information upon request, without obligation, but inquiries are desired only from men whose character and ability are markedly above the average. Office hours, 9 to 3.

WILLIAM L. FLETCHED INC.

WILLIAM L. FLETCHER, INC., 651 BOYLSTON STREET, - - - - - - - Boston 17, Mass.

#### Positions Wanted

A VERY high grade research man in chemistry and physical chemistry, holder of Ph.D. degree, is desirous of making a connection with some American manufacturer who wishes to develop some special process. Able to undertake problems of the most advanced nature. Has demonstrated ability over substantial period. Very high references furnished upon request. Address Technology Review, Box 4000.

CHEMICAL Engineering Graduate now in third year of college teaching wishes to return to industrial work as chemist, foreman, or assistant to executive. Location not important. Two and one half years of experience in explosive, paint and varnish and dye industries, both in laboratory and plant. Address Technology Review, Box 2037.

 $\mathbf{D}^{\mathrm{ISTRICT}}$  Manager: Man trained in Mechanical engineering, with several years' experience as sales engineer, is open for engagement as manufacturer's representative, preferably in New England. Address Technology Review, Box 2039.

GRADUATE of M. I. T. Class of 1918 with a sales personality and demonstrated worth in sales engineering is desirous of finding an opening with a reputable concern handling a product of recognized merit. A permanent connection is desired and one which will offer a real opportunity for constantly increasing earning capacity. Address Technology Review, Box 4001.

MANUFACTURING connection, preferably on a profit-sharing, investment, or some other basis which will make compensation depend very much on results actually secured. This opportunity is desired by an executive who has obtained successful results on a responsible position. Such results consist of a prompt change from losses to profits, no financial trouble during the recent business depression, etc. Institute graduate, with eleven years of broad engineering, production, sales and general business experience. Have been with one fair sized concern for the past six years, —last two and one half years as General Manager in full charge of manufacturing and sales. For details address Technology Review, Box 2040.

MATURE business man with long experience in handling business problems of broad scope desires an interview with some manufacturer who wants a suitable and capable man to handle the sales end of his business. Compensation desired in the vicinity of \$10.000 per year, although a lower figure would be acceptable if it carried with it a real opportunity. Address Technology Review, Box 4004.

MECHANICAL Engineer with ten years' experience, at present engaged as chief mechanical engineer for a very large New England manufacturing concern, is desirous of finding an opportunity for increased responsibility and consequent earning power. Can show first-class record, having been with the same firm since graduation. Address Technology Review, Box 4003.

MECHANICAL engineering graduate with the Class of 1915 at present located in Buffalo, is desirous of making remunerative connection with some western New York State manufacturer. Can show excellent record in development and production work. Has shown resourcefulness in former connections and believes that he can adapt himself to almost any sort of a manufacturing proposition of a mechanical nature. Address Technology Review, Box 4002.

PLANT Manager — Technology man with wide experience in plant management desires new connection. Experience covers twelve years of successful operation of machine shops with foundry for quantity and quality production of high grade product. Age 36. Married. At present employed. Address Technology Review, Box 2038.

POSITION wanted with good chance for advancement, by man of 30, preferably with small coming concern. Technology alumnus; two years' experience in construction engineering; five years' practical electrical work with large companies. Chance to get ahead of greater importance than present salary. Best of references. Address Technology Review, Box 2013.

TECH man, Class of 1917, with several years' experience as Manager of Planning Department of a large manufacturing plant desires a position of similar character or as Superintendent or Assistant Superintendent. Applicant wishes a permanent position with a progressive concern, needing a man of pleasing personality and ability. Address Technology Review, Box 2036.

Perry & Elliott Co., Printers Boston, Mass.

# The Life of Francis Amasa Walker

# Third President of the Massachusetts Institute of Technology

By James Phinney Munroe



ENERAL WALKER was eminent as a soldier, a statistician, an economist, an administrator, an educa-

tor, and, above all, as a man.

He was born in 1840, graduated at Amherst in 1860, fought through the Civil War and was breveted Brigadier General at twenty-five; was Superintendent of the Census at twenty-nine, Commissioner of Indian Affairs at thirty, Professor in Yale at thirty-one, President of the Massachusetts Institute of Technology at forty-one, and died at fifty-seven.

His first book, on the Wages Question, published in 1877, at once attracted the attention of economists, and was made part of the curriculum at Oxford. His Political Economy, published in 1883, marked him as the leading economist of America, if not of his time. He was the first President of the American Economic Association, and filled many other posts of usefulness and honor.

Partly because his family felt that no man's biography should be written until his life work has been before the world for

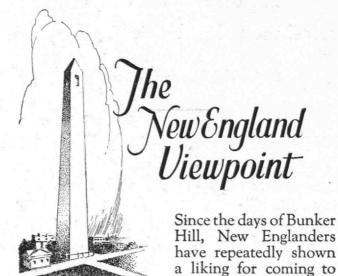
> twenty-five years, the present biography is but just ready. Its author was Secretary of the Faculty of the Institute of Technology during a large part of President Walker's administration.

The extracts from the author's Civil War reminiscences and letters meet a wide and undying interest; the accounts of his activities as a

statistician, economist and educator are of very exceptional value to all associated with these pursuits; the chapters on the Institute must be of great interest, not only to all Technology Alumni, but also to every undergraduate who finds daily satisfaction in the use of the Walker Memorial; and the book as a whole appeals to all who find entertainment and instruction in reading exemplary biography.



Henry Holt and Company, Publishers
19 West 44th Street, New York, N. Y.



close grips with the problems that confronted them.

We appreciate that attitude. It is the spirit which inspires our own efforts and governs our relations with the firms we serve.

One client recently wrote this to a new advertiser who inquired about us: Of all the advertising agencies we have employed, Walter B. Snow and Staff alone have spent our money as carefully as though it were their own." Another client wrote: "They work with us as well as for us. They neither seek to dominate nor permit themselves to be dominated."

If these comments are indicative of the type of service you are seeking, if you think the conditions they indicate might result in your advertising being handled to better advantage, tell us when you can conveniently talk things over.

If you're not ready to talk at present but would like to know something more about us, send for copy of our booklet "—then go ahead." It's worth reading, both for what it tells you of us and as an aid in judging and comparing advertising agencies.

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